

Cambridge blend 'should favour postgraduates'

by David Walker

Cambridge University should become more predominantly postgraduate, according to a recent report from its general board. It will encourage taking on more mature and "post experience" students and extending the range of postgraduate courses by new masters' degrees.

The general board of the university was reporting on the response to its proposals for a "steady state".

All faculties were asked to consider the proposed upper limit of 14,000 full time equivalent students. In fact the board stated that the 14,000 figure was a nominal one, more for use in acquiring land than as an actual target. It did not forecast growth beyond 12,500-13,000 students "for at least a generation".

However, the board stated its intention of buying up sites in Cambridge that would be needed to accommodate 14,000 students.

The board replied to criticism by university members of its proposed 50:50 ratio of arts and science postgraduate and undergraduate students. The proposals had been generally welcomed by the science

faculties but criticised by arts and social sciences faculties because they thought it could mean a reduction of their staff and resources.

The board said student numbers were only one of many factors to be taken into account in determining the allocation of resources. In recent years it had given priority to the needs of the limited resources available for new developments.

"The suggested ratio of 50:50 should be taken as the direction in which university policy should be guided rather than as a target which should or could be achieved rapidly; the board will expect to review this policy periodically to take account of changes in circumstances."

"There are advantages in seeking to match student numbers to the staff and resources available and the board have had in mind the present spare teaching capacity in some science-based subjects, and the considerable overloading of some arts-based subjects."

"However they reaffirm their belief that a desirable distribution of student numbers between the faculty and another would be achieved by means other than the introduction of quotas."

Hockney says art history courses waste of time

by Jane Feinmann

An attack on the compulsory inclusion of art history lectures in all fine art courses was made at a seminar on art education in London last week. It was one of four seminars held to provide a platform where artists, critics and teachers could discuss the problems facing art today.

Mr Brendan Taylor, the head of complementary studies at Winchester College of Art, said that art history was unnecessary and time-consuming. Since the College began its art education in 1960, it was compulsory for art history to be a minimum of 15 per cent of the course.

The prevalent opinion was that art students needed to know about art history because it linked them with artists of the past and instilled them with a sense of continuity.

"This is a very vague and unsatisfactory point of view. For me, and many others, all that can be said is that the value of the present culture and more specifically those of the art historians who write the books we study. But this point of view is perpetuated in the face of total complacency about the lack of an authentic response to art colleges to the culture we have now."

Mr Taylor said he had never come across a single case where

an artist had been improved by an art history course.

David Hockney, who was in the audience, said he could not remember ever going to an art history lecture and said every artist had a good knowledge of art history because he naturally enjoyed looking at paintings.

The general studies course which was introduced at the Royal College of Art while he was there was supposed to cover modern art criticism. But all it showed was that the authorities were confused and wanted to find any course to cover it so they could give a certificate at the end.

Clive Ashwin, a senior lecturer at Middlesex Polytechnic, recalled that one of his best students was unable to take up a scholarship at the RCA because he had not passed his history of art examination. The course was far too rigid and stereotyped and did not work.

But Mr Ashwin also attacked art colleges for turning out a minority of people who were disorientated and embittered by the experience of an art education offered them. Over a thousand people graduated in art studies every year and for some their education had encouraged them to identify with a model of an artist which they could not sustain in this society."

Most fine art students adjusted satisfactorily on graduation, but there were many, with odd and erratic tendencies which could not be fulfilled.

Jack Jones wants more democracy

Mr Jack Jones, general secretary of the Transport and General Workers' Union, has called for the development of a greatly advanced form of democracy in Britain. Giving an address at Blackheath College, London, this week Mr Jones said that democracy was a meaningless concept unless everyone involved had the maximum opportunity to affect results.

The "new civilisation" would require that all involved in the acceptance of decisions in industry be given full opportunity to take part in the determination of policy. Working people should be involved in the democratic process all the way through, he said.

Mr Jones was giving the foundation address at Blackheath College, which each year invites a speaker to address staff and students on a theme associated with its 100-year-old tradition of providing part-time education for working people.

£60,000 raised for refugees

More than £60,000 has been given by British university students and academics during 1974-75 for the education of refugee students in Britain and abroad, according to the first edition of the World University Service (WUS) Scholarship Manual.

The manual, to be sent to every university, polytechnic and college in the country, is part of a campaign to help coordinate fund-raising for next year. It is estimated that the campaign will raise twice last year's amount.

Among methods of fund-raising outlined in the manual is increasing the price of beer sold in student union bars.

The funds will assist all students who would not otherwise have educational opportunities. WUS is currently supporting 112 more black students at the University of Rhodesia, than does the Rhodesian Government. Over 300 children are also in Britain on WUS scholarships. Further details from a World University Service, 450 High Road, London N15 4AJ.

Herts teacher training to be halved

by David Hencke

One of Hertfordshire's two colleges of education is to be closed because the number of teacher training places available in the county is to be reduced from 1,350 to 700. This will leave the county with only 525 initial teacher training places.

Hertfordshire's further education sub-committee has agreed in principle to this but has not recommended which college should close. A decision to close either Sells Park College, Hertford, or Wall Hall College, Watford, will be made by the education committee on January 20.

Teacher training in future will be concentrated in a monolithic college while the buildings of the college facing closure will be transferred to Hatfield Polytechnic for its use.

The authority is also proposing to merge four further education

colleges into the new institutions by linking Watford College of Technology with George Stephenson College of Further Education, and Letchworth College of Technology with Hitchin College of Further Education.

The two colleges of technology and the Hitchin college run a small number of Higher National Diploma courses and one degree course.

The Department of Education and Science has asked the Church of England Board of Education to review its proposals to close the College of All Saints, Tottenham, and recombine existing Cutham College of Education, Abingdon.

A request from the DES, which says it is "hesitating" over closing the College of All Saints, will be discussed at a meeting of the Board of Education today. There will also be renewed pressure from St Peter's College, Salisbury, to remain open.

Culham College of Education, Abingdon, which was reformed by the Board of Education, was in the department's original list of colleges to be closed.

Dr Ernest Brent, principal of Garnet College, London, has been appointed the first director of the new South Glamorgan Institute of Higher Education which will embrace Cardiff College of Education, Cardiff College of Art, Cardiff College of Technology and the Cardiff College of Food Technology and Commerce.

Dr Brent was one of five short-listed for the post.

Mr Robert Clayton, principal of Marlow College of Education, has been appointed principal of St Martin's College of Education, Lancaster, in succession to Dr Hugh Falshaw, who is retiring.

Gwent College, page 5



Student teachers from England and Wales staged a 24 hour vigil outside the offices of the Department of Education and Science on Friday to protest against the cutback in teacher training places from 114,000 to 60,000 by 1981 and deteriorating conditions in schools. They presented a wreath to department officials in memory of the colleges which are to close.

Mulley defends £465m grant

Unleashed to the United Kingdom were more effectively organized and more efficient in cost-benefit terms than anywhere else in the world, the House of Commons was told recently.

Answering questions to the House, Mr Mulley, Secretary for Education, said there was no doubt the universities were under great financial stress, but he wanted to pay tribute to the work they were doing.

However, in another written answer, he said in the country's present financial state the universities' grant of £465m for recurrent spending in 1975-76 was a reasonable settlement.

He gave new recruits (undergraduate costs per full-time equivalent student, excluding student support and loan charges, for 1973-74, were £330 for major establishments of further education; £1,130 for the polytechnics; £560 in the colleges of education; and £1,400 in the universities, excluding Northern Ireland.

Mr Mulley also gave figures for overseas students, both full-time and sandwich, attending colleges of the Inner London Education Authority. In 1972 there were 5,752 which represented a 7.6 per cent increase over the previous year; for 1973 it was 6,489 (9.9 per cent); and the provisional total for 1974-75 was an increase of nearly 12 per cent over 1973.

In a written answer Mr Mulley divided the number of vacant places in science and technology between the two sectors of higher education. He reported that about 18,000 of the 30,000 vacant places were in universities this year; the remainder were in polytechnics.

NUS Liberal resigns

Mr Francis Haydon, the sole Liberal on the executive of the National Union of Students, has resigned his seat. In a letter to Mr Charles Clarke, president, he condemns the union for its attitude to the Third World and for supporting the law of the jungle.

"I am becoming so oppressed into an institutional solidarity entrenched in the 'exploiter' corner of the world. It is fighting for the right to be dependent, struggling for the right to be persecuted and grasping for the right to exploit and be exploited."

Royal Society looks to youth

by John Ross

The Royal Society has decided to increase the number of fellows elected annually from 32 to 40. This was revealed by Sir Alan Hodgkin, president of the Society, who retires this year after his five year term.

He will be succeeded by Lord Todd, Master of Christ's College, Cambridge.

In his final anniversary address to the Society, Sir Alan said: "I believe the Society has an important part to play in the life of the nation and it can only do this effectively if there is an adequate representation of young and active people. By young, I mean 45 or less."

Sir Alan also announced that the society's appeal, launched 18 months ago, had so far raised £355,000. He noted that the target of £1m had nearly been reached, in spite of the financial crisis and in spite of the fact that the appeal was not for any specific purpose.

Sir Alan criticized the manner in which funds had been transferred from the Agricultural Research Council, the Medical Research Council, and the Natural Environment Research Council to various ministries.

He concluded that much of the work done by the MRC, ARC and NERC was not well suited to the "specific contract" system, and that attempts to apply this customer-contractor relationship in a rigid way were liable to be self-defeating. However, he went on to say that government ministries should be involved in defining research council objectives.

He called on the Government to appoint a Chief Scientific Adviser, as proposed by Lord Rothschild.

Plea for more Welsh

Welsh should be included as an essential part of the business and public administration qualifications in colleges in the Welsh-speaking areas of Wales, says Pled Cymru in its evidence to the Business Education Council.

Mr Hywel Roberts, Pled Cymru's spokesman on education, said: "The Welsh language will only survive if it is fully used in everyday life in Wales and this includes it becoming the day-to-day working language in administration and business."

Oxford foresees 'steady state' in housing needs

by Frances Gibb

Fewer Oxford University students will occupy housing in the city by 1981 than two years ago, according to a recent survey conducted by the university and sent to the City Architect and Planning Officer.

The number of students in 1973/74 needing city accommodation was 4,295 out of a total of 11,260 resident students. By 1976/77, it is estimated that 4,000 students will need city accommodation out of a possible total of 12,350. The proportion will be the same by 1981 when the total number of students will stay roughly the same.

Mr Geoffrey Caston, the registrar, said: "The general aim is to provide additional student housing to match any growth in numbers. The figures seem to show we shall do rather better than that even if the full student numbers projection for the end of our current five year plan are attained."

"We don't apologise for the fact that many students still have to find accommodation in the city," he added. "That is part of the college tradition of the city and the university."

Nearly 700 units of accommodation are planned between now and 1981, of which nearly 80 per cent is expected to be in colleges. Most of the rest will be purpose-built, with only some 25 units dependent on the operation of new property by the university. Property has already been purchased for another 170 units which await planning approval.

The university housing forecast for 1981/82 is: colleges, 2,798; other housing, 225; total of 3,023. The total of 3,023, for a possible student population of about 12,000.

At both these institutions, said Mr Clarke, the effective working body was a gathering of their own academic staff with no outside accountability or responsibility whose prime concern was to defend the educational traditions upon which they stood, irrespective of any real contemporary approach to educational problems. It was this remoteness that exemplified the need to bring the education system closer to society's overall needs.

The state of affairs where higher education did not relate to the great problems of the day should be stopped, said Mr Clarke.

Guides to Lectures 8, letter 12

Spend to rate grant limit, Mulley urges

Local authorities are being urged by Mr Mulley, Secretary of State for Education, to increase their spending on education in line with the extra money which makes up the rate support grant contribution to education.

Mr Mulley said that next year's rate support grant would be an increase of about two per cent on last year's. He said that the increase in education spending would be about 1.5 per cent.

Calculations for the rate support grant for next year allowed for an increase in local authority spending on education from £4,050m in 1974-75 to £4,171m in 1975-76 at 1973 prices. At 1975 prices, this should mean that local authorities should spend about £4,475m on education next year.

Mr Mulley said that local authorities should be aware that local education authorities were using their discretion to spend less than this on education. He said that the amount of extra money available to local authorities was not being used to the full.

Remove control of entry from universities, NUS says

by Sue Reid

The National Union of Students has launched a bitter attack on Britain's universities. It is calling for the establishment of a national body responsible for all higher education and an end to individual university control of admissions.

Speaking in Manchester recently Mr Charles Clarke, president of the union, claimed: "While universities maintain their concern with their own narrow definition of 'standards' and while they are still able to control university entrance requirements and, through them, secondary examination systems, the interests of all those destined not to reach university eminence will be second priority."

"In this very real sense the universities are surrendering their responsibilities to the wider educational needs of the society and their control of their admissions systems should be ended."

The union, said Mr Clarke, had argued for some years that the binary divide in higher and further education should be ended. It advocated the establishment, nationally, of a higher education commission responsible for all higher education and through which all finance should come.

Decisions on the senior research oriented professions and a real shift in the balance of power should take place within the institutions towards junior staff, students and non-academics.

Universities, he added, were increasingly unresponsive to any change in the priorities which society was looking for in its education system and the forerunners of control existing in education were both undemocratic and unaimed at fulfilling the wider needs of society as a whole.

The effect of this was to create an enormous disinclination in students with all higher education and effectively to drive many younger people from fulfilling their own educational promise.

Mr Clarke said the external pressures on universities should be strengthened, not by industry or the professions which now played a major role, but by representatives of all sections of the community, locally and nationally.

Communities should see localities of higher education as places which could actually assist in solving problems. He pinpointed Oxford and Cambridge universities as playing a dominant role in the academic, economic and political life of society.

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A FUNNY THING HAPPENED ON THE WAY TO THE FORUM...

Brunel's double withdrawal methods incense 'Forum'

A last-minute decision by Brunel University to cancel its long-awaited conference on obscenity laws for the second time has raised a strong protest from Forum, the magazine which planned to sponsor the event.

The conference, originally scheduled for last February because of lack of support, was due to be staged last week. But with the opening date only a fortnight away the university cancelled it for the second time in a year.

Now Forum claims that the university has deliberately prevented discussion on the obscenity laws and censorship.

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DES is too secretive complaint to MPs

by David Walker

A House of Commons committee investigating the Department of Education and Science heard complaints this week of its unwillingness to let policies be publicly debated.

The education, arts and home Office sub-committee of the Commons Expenditure Committee under the chairmanship of Miss Janet Fookes, MP, heard a succession of witnesses outline the difficulty of obtaining information from the DES and the absence of consultation.

Professor John Vaisey of Brunel University said that the DES policy required much more subtle and complex public debate than some other aspects of government.

"There seems to me to be very little to be said for any degree of confidentiality in the education debate. Evidence in France, Sweden, and the United States suggests that the wider and better informed the public debate, the more likely are the decisions of government to be reasonable and sensible," he said.

He was joined by Mr Simon Maclean, Editor of *The Times Education Supplement*, who said that the DES policy on teacher training had been pushed through by a mixture of "bluff, power, personality and self-interest" without adequate public representation or discussion.

The Russians are not interested in the future of our colleges of education as the secrets of our policy are purely political. If policy were openly discussed affairs would be better managed.

But unnecessary confidentiality also creates the leak, the inspired guess, the rumour, the piece of confidential material, which inevitably leads to a piece of information, however trivial, which has been passed from some high-level ministerial list, on the other.

Academic and journalistic witnesses also suggested reforms to the DES.

When the reorganization started to occur it came as a surprise and it was not until after it was under way that the DES published an excellent *Report on Education* setting the opinions upon its plans and enabling an informed public debate to occur.

Not a single press release was issued until the reorganization was almost completed.

Overseas students were being housed out of the country because the Home Office was giving way to cheap electoral gifts from Conservative MPs, according to Mr Peter Ashby, vice-president of the National Union of Students.

He told students at Warwick University last week that driving them away saved the pathetically small amount of money they cost the country.

Attacking students from developing countries, trying to drive a wedge between them and the British people among whom they live, is no way to solve the economic problems of this country. It is an excellent way to get a worldwide reputation for meanness."

He was speaking in the NI'S' day of action for overseas students. Students throughout the country held seminars on the Government's policy.

Overseas students had to leave halfway through their course because of small technical brochures of the regulations, Mr Ashby said. On the eve of the NUS' day of action, Mr E. Robinson, principal of Bedford College, declared that students from minority ethnic groups needed special assistance.

Colleges need teachers with specialist knowledge of migrant problems."

Letter, page 12

TOUT LIVRE FRANCAIS expédié en quelques jours
+ a des conditions de PRIX IMBATTABLES
+ et les services d'une GRANDE LIBRAIRIE FRANCAISE, ce sont les POINTS FORTS DE LA

LIBRAIRIE DE L'UNIVERSITE

17, rue de la Liberté, DIJON, FRANCE

THES Christmas competition

After the success of our Christmas competition last year, *The THES* is once again offering six prizes for short parodies of features that appear in the paper week by week.

Our readers this year are invited to submit 400-word parodies in the following categories:

- A book review
- A fragment of Don's Diary
- Their worst student essay of the year
- The next speech by Lord Crowsley-Hunt
- Three prizes of £20 and three of £10 will be awarded to the most entertaining entries. Any other contributions that are printed will be paid at our normal rates.

Entries should reach *The THES* by December 12, marked "Competition". Our address is: The Times Higher Education Supplement, P.O. Box 7, New Printing House Square, Gray's Inn Road, London, WC1A 8SZ.

Peter Wilby gives a guided tour around NUS political groups

Beards, Buddhists and broad left

At the National Union of Students conference, which starts in Scarborough today, the capacity to distinguish fine political differences between the various groups will be vital to delegates and observers. The following guide to studentology should help those who read about the conference, and those who attend it, to avoid error and what the NUS politician calls "an incorrect analysis".

Broad Left

Alliance of Communists, left-wing Labour students, and non-aligned. Heir of Radical Students' Alliance, Left Caucus and Broad Left Caucus. (Broad added to title when it became narrower through loss of Trotskyists and Liberals.) No formal membership, but private bulletin is mailed to those who pay 50p a month into its bank account.

Strongest group in NUS. 13 out of 17 places on executive, including president, Charles Clarke. Very strong in Scotland and London. Well-organized organization that is lauded as well as respected. Has severe-looking men walking around at conference with clipboards carrying complex calculations of voting strength. With some exceptions, leaders talk like cement mixers, putting out words like "strength" and "perspective".

Rejects ideas of students as revolutionary vanguard. Says that NUS should be mass organization to which left, centre and right students can belong. Hopes this conference will support "a policy position of seeking support from official trade union movement to fight Government education cuts. This should come before student militancy which, on its own, might be adventurous."

Says that International Socialists are crumbling.

Communist Party of Great Britain

Sixty student branches and 800 student members. Part of Broad Left, but keeps low profile. Not people think it is run by Moscow. Sue Shipman, NUS secretary, is a member. Has several other people in prominent positions in past six years. Usually man with big beard.

Says students are not part of productive process. But will take up "intermediate" positions in society and can form important part of anti-monopoly alliance. Should take up "progressive positions" on all issues but most important to fight on issues that affect them directly as students.

The college started its first diploma of higher education course in September. Validated by the Welsh Office of Higher Education, the diploma is a two-year course at levels. The new course has been based on the work in the teacher training field with particular contributions in art and design from the art college and in mathematics and science from the technology college. The course, because of outside restraints imposed by the DES, has had to recruit entirely from students wishing to enter teacher training. At present no transfers for students taking the Dip HE to other degree courses validated by the University of Wales have been arranged. Nor is there much possibility for students recruited in September to transfer to degree courses other than the DES within the institution.

Students recruited in 1976 should be offered a broader based diploma course and the new degrees are available in 1977, they should have opportunities to transfer to the new courses.

Many of the new ideas for courses in applied social behaviour and developments involving fine art, film and technology should offer a sound basis for the future.

But the real question facing Gwent, and a number of other colleges of higher education, is whether the plans for new, imaginative developments will have sufficient resources, and even if those are available, whether national ideas for limiting course provision will prevent these developments taking place.

David Hencke

fishes. Usually delivers snid and disciplined (that means they do what they're told) bloc of 50-odd votes at NUS conferences.

Says that NUS should be affiliated to TUC and Labour Party and that there should be a mandatory student wage of £35 a week. Has "revolutionary socialist" programme involving lots of nationalisation and common ownership that it says Labour Party should adopt. But those are really Trotskyist "transitional" demands on road to total revolution. Working through the Labour Party in this way is called "entrism", if you think it's all right, "subversion" if you think it's not.

Students for Representative Policies Five hundred activists. Claims some base in 40 or 50 student unions. Leading light behind secret ballot moves. Heir of Radical Action Group. Denies that it is a Tory front.

"On the national coordinating committee there are twice as many liberals and social democrats as conservatives," says Paul Booth, the president. "We go as far left as the Tribune Group."

Started because of "outrageous" NUS conference decisions banning fascists and racists from student union in motion on Ulster.

Says NUS should concentrate more on student than on international issues. Says this is too last resort, not ends in themselves.

Strong in UC, Cardiff, where Booth is president, and to Birmingham University. But better known in Daily Express offices than in most student unions.

Communist Party of Britain (Marxist-Leninist)

Largest Marxist party to Britain—student membership below 100. Says students are members of working class. Advocates local guerrilla struggle as prelude to national armed class war. Strong in Bristol University and Central London Polytechnic.

National Organization of International Socialist Societies

Leading Trotskyist group among students, and numerically strongest opposition in NUS to Broad Left. 2,500 members including some who are not in IS itself.

Traditionally etcherich and unfussy about doctrinal precision. Therefore, naturally, fanatical. Workers' Fight and Revolutionary Communist Group are among those who have broken away. Now said to be getting more centralized.

Former member, Hugh Lanning, elected as NUS Treasurer last Easter. NOISS would not support him because it was "careerism" to hold office because of his lack of interest in NUS and seen as a threat by all groups as a closely associated with SRP.

Wants to cooperate with other left groups at this conference to defeat right-wing call for mass secret ballot for NUS executive. Simon Turner, convener, says students must use power to take "forms of direct action". Each action must be accompanied by "political explanation".

Strong, as all the world knows, at North London Polytechnic. One member of NUS executive. Says: "Broad Left is crumbling."

International Marxist Group

British section of Trotsky's Fourth International. Doctrinally purer and more consistent than IS. Says Soviet Union is degenerated workers' state. (IS says it is state capitalist after Stalin's counter-revolution and needs social and economic as well as political revolution.) More sympathetic to Labour Party than IS. Says NUS should affiliate. You might call this: "entrism". If you want to be ahead of the game.

Says student grants and education expenditure should be tied to cost-of-living index. This is better way of getting workers' support than demanding obsolete rises.

About 300 student members. Strong in Birmingham Polytechnic.

Manchester, Kent and Oxford Universities. One member of NUS executive, distinguishedly beautiful Vel Coulins. She criticised executive for not issuing press statement opposing wage restraint and called out of Chile seminar because some one was there who shouldn't have been.

Young Socialist Students' Society

Student section of Trotskyist Workers' Revolutionary Party, which used to be Socialist Labour League but is not to be confused with Workers' Socialist League, comprising people who were expelled from WRP a year ago.

Believe in building pure revolutionary party (only student role to be part of it) and refuse to cooperate with other groups, even Trotskyist groups. Insignificant student strength. WRP daily paper, Workers' Press, sold with single-minded, humourless devotion by girls in overcoats.



Star turn used to be man who said, 'Give it another three weeks'.

Star turn used to be man who said, "Give it another three weeks." Frankly who told NUS conference that, after that, troops were sent over here and "smash the lot". Complained that delegates only laughed. Became laughing stock.

Always says "reelact Labour Government". Does not want to be of office because still has to be elected on basis of socialist programme.

Union of Liberal Students

2,000 student members. Call themselves "libertarian student society". Rhetoric, therefore, comes in distinctive form. Wants to derive nothing down to the kitchen sink. Involved with SRP, then Trotskyists. One member of NUS executive: pipe-smoking Haydon of Bristol University.

Federation of Conservative Students 10,000 members, well organized and wealthy. Grant from Tory Party, but size not disclosed. Revived in past two years, but little interest in NUS and seen as a threat by all groups as a closely associated with SRP.

Mark Haggood, full-time student, does not think that students have a "connectivity" role in society. But, says Haggood, "the quality of the country's leadership in the professions, the Civil Service and higher education is declining."

Says students are not a class. Says NUS can't offer anything to Government on how to improve income, but should concentrate on putting the case for higher education. Says that Honduras are not proper concern of NUS. Strong in Southampton University.

Monday Club Universities Group

Works within FCS, but official Tories are too feeble to demand disruptive activity. Demanding membership. Strong in Oxford, Sussex and Wales. Used to have a few delegates in NUS, but now only one or two.

Says students are individuals, not a class. Says NUS shouldn't exist, but basis of voluntary membership.

University catering should go on diet

by a university correspondent

All principals and vice-chancellors are concerned about the deficits they are likely to incur in the academic year just started. The increase in fees brings them no benefit as their government grants for day to day expenses are reduced by the amount which the higher fees bring in.

For most universities one of the headaches will be the continuing cumulative losses on catering accounts. Apart from certain specially situated universities, like Keele or Stirling, which attract substantial conference business during vacations, the income from which helps to sustain the catering account during the otherwise unproductive periods, universities find it difficult to avoid a loss on refectory business.

It must be strongly emphasized that, in general, refectories operate at peak performance for some 30 weeks in the year during the three academic terms of 10 weeks each.

Even if refectories employ, as they do, a high percentage of part-time staff during 30 weeks, and disperse with their services during vacations, there is always a nucleus of a few permanent staff whose salaries and wages have to be paid during the unproductive, loss-making vacations.

This then is the problem—how to make a catering concern financially viable over 52 weeks when it is operating at peak capacity for only 30 weeks while its intended clientele are "up" at the university.

A fundamental reappraisal of the financing of university catering is long overdue. The Treasury, the Department of Education and Science and the University Grants Committee all resolutely refuse to accept the very special factors which affect university catering finances.

No doubt a student with a maximum grant or a student with less than a full grant which is made up by persons to a full grant, should be able to pay an economic price for his food during term. Out-of-term he can obtain, as most do, supplementary benefit, if he is not employed. But the student, rightly or wrongly, objects to paying prices inflated to cover costs of the university.

There would seem, therefore, to be a case for dividing catering into two periods—in term, and in vacation, prices should be agreed separately for both periods, and as vacation catering is purely a service for staff and students it remains a special surcharge could be levied, in the expectation of the vacation account breaking even. If it does not, the deficit should be met by the university.

It is a long time, too, since a witness at another SSRC-sponsored meeting reported—Sir Keith Joseph, then the Secretary for Health and Social Security, said "getting more and more food and more food and more food" into his concept of "transmitted deprivation" and proclaimed the dangers of government interference. In fact the SSRC did go on to place some research contracts in this area, but left many civil servants intensely frustrated at social scientists' conceptual bickering.

It would not do to over-emphasize the dashed hopes of the government had in the mid 1960s about what social science could "deliver". A point made by Sir William Armstrong, then Head of the Civil Service, at another SSRC conference in 1969 is still true. He said that "efficient communication" on the content of research would greatly increase the cost effectiveness of the total effort made by both the government and the SSRC. Whether the SSRC's legion of "academic liaison officers" in various government departments serves this end is a problem Mr Robinson and his staff will have to face.

The SSRC's permanent staff and their part in the controversies that have rocked the council during the past year are another important part of the question whether the SSRC ought to be more dirigiste than it is.

The significant events during the past year have been the departure of the SSRC's secretary in February, the public dispute between the University of Aberdeen and the SSRC, and more recently the closure of the Survey Research Unit.

During the summer the morale of the permanent staff reached what one of them described as "an all time low". Only recently, under the new regime of Mr Robinson and Dr Cyril Smith, the new secretary, has it picked up.

G. R. Cowie



SSRC Chairmen since 1965. From left: Dr Michael Young (1965-68), Mr Andrew Shonfield (1968-71), Professor Robin Matthews (1971-75), Mr Derek Robinson (1975-).

SSRC: doubts and uncertainties 10 years on

David Walker surveys the Social Science Research Council a decade after its creation

The resignation of Mr Michael James, the former secretary, plunges an administrative problem that has plagued the council during its life: the relationship between part-time chairmen and full-time secretaries.

What can be said with certainty is that Professor Matthews, whom no one would doubt was a very able chairman through a great respect for persons, had very little "cuse loro" to go on. His predecessors, Dr Young and Mr Andrew Shonfield were very much their own men and the chairman's role is still undefined, rather in the chagrin of some of the staff and council members.

What emerged from the Aberdeen affair, however, were charges that the SSRC permanent staff were too much London based, inbred and ignorant of conditions elsewhere. The charge is difficult to evaluate since, alternatively, there is talk of an "Oxford mafia" among the senior staff. One council member, by contrast, complained that the staff were not in the office enough; they should go on fewer "jaunts".

Undoubtedly some SSRC staff "have pretensions". Council members complain of the great reticence of staff who attend meetings. Outside, this judgment fuels the suspicion among academics that SSRC staff—on Civil Service retires—obvious qualifications as well as a committee secretary—who would service, say, the psychology committee and linguistic panel—would be paid on a scale from £4,595 to £5,188 a year for a 36 hour week. University senior lecturers start at about £5,840 a year.

There is a wider question. The SSRC spends a higher proportion of its budget on administration than any other research council. The Annual report for 1969-1970 took this question up, admitting that the SSRC does have a larger "input" of man hours of work and weight of written documents for each £100 of research grants.

However, it reported that the SSRC had a higher ratio of rejection of applications for grants than other councils.

Dr Michael Young's conception of the SSRC in the early days as some kind of free-wheeling, small, flexible organization has certainly disappeared. It now has a budget of £7m and a staff of 155 at headquarters.

The SSRC is very much on instrument of academic self-government. Academics run the subject committees and council with only a small proportion of members coming from government and industry.

Even if it has copied some models of research management from other research councils, notably the Medical Research Council which, according to one staff member provided many of the ideas when the SSRC research units were set up, it has also been an experimental body. Between the academic and the part-time in the council, there is a middle position. Those in the middle feel that the council's initiatives, though innovative, should be only ad hoc "counterweights" or various points to the dual support system.

The university ethos of individualistic research, or research as a residual after teaching, of narrow subject specialization, needed to be replaced by the SSRC's stress on team research involving more than one discipline than was properly funded.

During Mr Andrew Shonfield's chairmanship this case against the universities was gently put. One annual report stated: "The intellectual requirements of effective multi-disciplinary research are not always readily met by the existing departmental structures of universities. In theory a university is precisely the place where cooperation between the practitioners of different disciplines should be evolved."

There is no doubt that specialists in various branches of the social sciences do benefit from the continuous communication of ideas that takes place in common rooms and other university contexts.

However, it may be regarded as one of the specific purposes of a research council concerned with the whole range of the social sciences to invent institutional means of resisting the powerful tendency towards the excessive compartmentalization of the individual disciplines.

The history of SSRC initiatives crystallizes around its research units set up to do fundamental work in areas the universities had not adequately provided for: ethnic relations at Bristol, industrial relations at Warwick, social studies in Oxford, the group for the history of population and social structure at Cambridge and the ill-starred Survey Research Unit.

Questions about their work abound. Should their directors have been full-time from the start? Why did their associated universities not encourage in allowing them to take postgraduate students? How far can the units operate without a well-founded "research career" within British higher education?

Much criticism is levelled at the units when it is certain that as an experiment they were necessary: there are no minor reasons why they should not work in the social sciences if they have in mind research or the natural sciences. The difficulty has been recognizing, as the Medical Research Council is said to have done, that a unit perhaps needs an outstanding director, or original figure round which to build.

Sonu commentators argue that the SSRC is best assessed for the way it has educated researchers rather than for the specific work it has funded which, in the last analysis, come from university based academics themselves who until recently would play the market of research funding bodies. It is worth noting that the procedures of evaluating projects are probably less stringent at sources like the Nuffield Foundation and Leverhulme Trust.

What this adds up to is the fact that despite the activists' hopes, the SSRC has never finally reached a grand scheme of research. Unlike the French with their national plan, the British approach to social research has been piecemeal.

The basic element in the SSRC's work, apart from the disbursement of postgraduate awards on a quota basis in departments, is its handling of applications for research grants. One council member said candidly that in spite of the numerous cutbacks it was still true, as it has been throughout the SSRC's history, that there was spare money. The committee sometimes had to "drum up" applicants.

The system attracts moans rather than sustained criticism, although charges that the subject committees are cliques abound in areas like management and industrial relations. Basically the SSRC system is the one that underpins much university work and one that is landed recently by Mr Richardson as a "peer group review". Just as academic peers judge articles for inclusion in learned journals or judge their own work on appointments so grant applications are scanned by members of the subject committees and a complicated routine of referees.

But while the application process can be organized, fairly well in most eyes, in committees the research process escapes this detailed scrutiny. One of Mr Robinson's major problems is to try to identify so grant applications are scanned by members of the subject committees and a complicated routine of referees.

As was made clear by Professor Matthews at the time of the debate on the Rothschild proposals for research, the SSRC sees itself as devoted to "strategic" work. Civil servants complain that its work is too often neither quickly enough produced to be of use in policy nor sufficiently "fundamental" to provide general guidelines for government.

The tension between government and the university devoted to knowledge is chronic and the SSRC has given uneasily between the two. Nevertheless the Annual Report of 1970-71 contained a clear statement of just what the SSRC can offer, albeit small.

Most social science research tends to produce useful ideas with an increasingly first factual basis rather than definitive answers to major policy questions.

No set of firm generalizations will emerge from this research which the policy maker will be able to rely on. He will still need plenty of judgment. But he will have a much stronger basis of factual material to judge by. The ultimate payoff from this type of work is that no one's intuitive powers will have to be stretched to excessive lengths.

Whether this "minimalist" assessment of what the SSRC and social research offers will satisfy the government who probably find they have social imagination enough is just one of the problems Mr Robinson will be trying to answer as he begins his "reappraisal" of the SSRC's work.

His predecessor warned that the need for "useful" work and an active, directive policy for the SSRC should not be confused, in that direction lay a serious assault on academic integrity.

Three-in-one Gwent still searches for merger unity

Gwent College of Higher Education, Newport, established last September by merging three colleges, is no institution with great academic potential which still has to be welded into one entity.

It was created from three former colleges: Caerleon College of Education, Newport College of Art and Design and Newport College of Technology.

At present however, only the top layer of administrators have any overall concept of how the college should develop. For many of the staff and students, the title may have changed, but the reality is still three colleges on separate sites.

Mr John Wright, vice-principal and former principal of the college of art, is candid about the difficulties. He admits that the merger was pushed by both the local authority and the Department of Education and Science.

The result was that staff could not think through the implications of it so an institution was created without even a properly constituted academic board and without final articles and instruments of government.

Mr Mel Harris, the new principal, is one of the few college of education principals to become head of a diversified college.

It is a measure of his success that the staff of the former college of technology, who were initially sceptical of his ability to understand their problems, now respect his judgment. But Mr Harris faces a very difficult task if he is to succeed in welding Gwent into a united institution.

Mr Harris has neither the empowerment nor the ideology of a Sir Eric Robinson. He is not in favour of a root and branch dissection of his institution, and prefers to tread warily. The education authority has insisted on no redundancies for academic staff and has carried out extensive regrading of existing posts.

The result is that many of the people employed at the college are in higher salaries but are not necessarily more efficiently used. The reorganization also makes it difficult for the college to appoint new people.

The college has inherited three traditions of education: the college of art which had a strong independent identity and from the college of technology with a history of craft courses and a more recently developed tradition of courses in accountancy and business management.

The college of education has always been considered a competent institution. It has not been a pioneer of academic change, like Birmingham and Telford, but it has a reputation for producing well-qualified teachers, with an emphasis on professional training which is now reflected in its new courses.

The college of art has a national reputation. It has Council for

National Academic Awards approval for two honours degrees in fine art and graphic design; an international reputation for its small school of documentary and animated film and competent standards in fashion and textiles.

The college of technology has always offered a wide range of courses from GCE A levels to Higher National Diplomas, although its A levels are expected to be transferred away from the college, now it has become a higher education institution.

This college also has a new school of trade union studies, one of only two in Wales, which shop stewards can enter as mature students and study trade union organization.

Mr Harris's solution has been to build on the academic potential of the three colleges by introducing new courses involving the staff in each.

The academic plan at Gwent is to link the work of the three colleges by developing four new courses, the Diploma of Higher Education, and degrees in applied social behaviour, design and West European studies. The aim is to submit most of the proposals to the University of Wales for validation, with a view to getting Regional Advisory Council approval to start in September, 1977.

The college started its first diploma of higher education course in September. Validated by the Welsh Office of Higher Education, the diploma is a two-year course at levels. The new course has been based on the work in the teacher training field with particular contributions in art and design from the art college and in mathematics and science from the technology college. The course, because of outside restraints imposed by the DES, has had to recruit entirely from students wishing to enter teacher training. At present no transfers for students taking the Dip HE to other degree courses validated by the University of Wales have been arranged. Nor is there much possibility for students recruited in September to transfer to degree courses other than the DES within the institution.

Students recruited in 1976 should be offered a broader based diploma course and the new degrees are available in 1977, they should have opportunities to transfer to the new courses.

Many of the new ideas for courses in applied social behaviour and developments involving fine art, film and technology should offer a sound basis for the future.

But the real question facing Gwent, and a number of other colleges of higher education, is whether the plans for new, imaginative developments will have sufficient resources, and even if those are available, whether national ideas for limiting course provision will prevent these developments taking place.



Clause Four

Takes name from some clause four that H.G. Wells used to go on about. Tribune Group of the student movement. Part of Broad Left, but keeps low profile. Not people think it is run by Moscow. Sue Shipman, NUS secretary, is a member. Has several other people in prominent positions in past six years. Usually man with big beard.

Says students are not part of productive process. But will take up "intermediate" positions in society and can form important part of anti-monopoly alliance. Should take up "progressive positions" on all issues but most important to fight on issues that affect them directly as students.

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Alien thoughts disturb British philosophy

The Oxford tradition in British philosophy has declined in importance, particularly in the newer institutions, since its heyday immediately after the Second World War. Frances Hill examines the state of philosophy in Britain now and the contribution of three main influences that have changed approaches in universities, polytechnics and colleges.

Unlike any other academic discipline philosophy is not based on a body of factual knowledge. Its study consists in the examination of fundamental conceptual questions about the nature of reality, existence, language, knowledge and moral judgement—most of which have been under discussion for 2,000 years.

The task of a philosophy department is to present and elucidate the efforts made in the past and being made now in answer to these fundamental questions and, it is hoped, to teach students to think "philosophically" or themselves.

The task has become rather more complex in recent years than it was in the 1950s or even the 1960s, since there is no longer the simple doctrine of consensus in British universities about the most appropriate and worthwhile kinds of philosophical "answers", or attempts at "answers", to be explored.

Immediately after the war British philosophy was dominated by certain pre-eminence figures—Austin, Strawson, Hare—whose work seemed to point the way to the solution of all philosophical puzzles by the clarification of relevant concepts through the rigorous analysis of word meanings.

Since 1950, and to a much greater extent during the past 10 years, the linguistic approach has lost ground and a variety of alternative methods of tackling philosophical questions is gaining importance and respectability within English universities.

Even when the analytic linguistic approach here is now more variety in pre-occupations and methods than two decades ago. The one of philosophy teaching in many universities is still in the Oxford tradition, but that tradition is no longer possessed of its former unchallenged self-assurance and sense of purpose.

There have been three main influences on English philosophy since the period when the Oxford analytic approach was predominant: the growing importance of American philosophy; the renewed interest in political philosophy, especially Marxism; and the increased stature in Britain of modern continental philosophers.

The extent of these influences varies widely from one philosophy department to another, depending on the interests and specialities of individual members, and to a certain extent the use, or lack of it, with which particular departments can make changes in courses or course content.

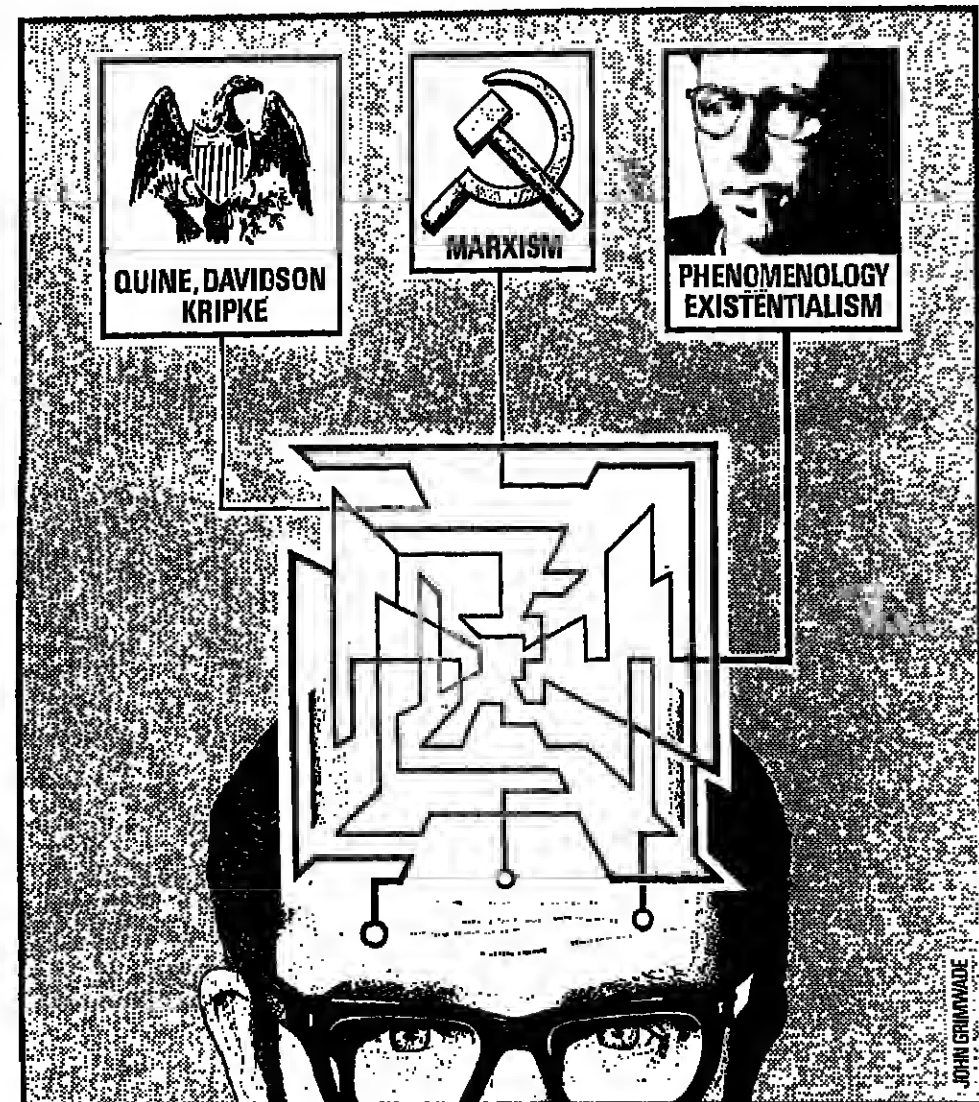
The contribution of American philosophers to the philosophy of the English-speaking world has increased dramatically during the past 20 years. The 1950 situation, when the raft of ideas in philosophy was largely from East to West across the Atlantic, has been usually reversed. One of the effects in England has been a significant upswing of interest in the highly technical advanced logic which has always constituted the main preoccupation of most of America's important philosophers.

Figures such as Quine, Davidson and Kripke, whose approach is very much in the tradition of Russell and Frege, have sprung into prominence in England and now dominate the philosophical scene at Oxford, Cambridge and London. Their influence is less pervasive in the provincial and new universities, but there are pockets of particular interest in their approach in a number of places, such as Leeds, where a strong tradition of excellence in the teaching of formal logic and logic in Edinburgh, St Andrews, Sussex and York.

For a number of philosophers, trained in the Oxford tradition, the new emphasis on highly technical philosophy is surprising and somewhat baffling. "One wouldn't have predicted this kind of technicality," says David Hamlyn, editor of *Mind* and professor of philosophy at Warwick College, London.

"Battles we had thought were won are being fought again. Views of meaning are being questioned. The kind of thing one sees in Davidson and Kripke has convinced us with theories of meaning going back to Frege. There is a tendency to see Frege as a mission of sorts."

The new technicality is the more surprising, in Hamlyn's view, because it follows



movement, very much in evidence in the early 1970s, which was highly critical of the "sterile" nature of British philosophy. Sprung out of the 1960s student protest movement, as well as reactions against the dominance of analytic linguistic philosophy, the "radical philosophy" group, based at the University of Kent, campaigned for more concern within philosophy as a whole with the problems of "real life" rather than language, as well as for a more central place for moral and political philosophy.

Although it seems unlikely that the group has had very much effect in itself, its publication *Radical Philosophy* tends to be regarded as lightweight and rather naïve. It has certainly reflected a reasonably widespread set of attitudes among younger philosophers. Those attitudes, together with American influences, have brought about something of a renaissance in political philosophy. In the 1950s the subject was regarded as "rather dull," says David Hamlyn: in the past 10 years it has "got going" again, attracting some of the ablest young philosophers.

The main thrust of the revival of political philosophy is an increased interest in Marx and his followers and the desire to study them and others less from the analytic linguistic standpoint, and more on their own terms. This approach has by no means gone unopposed by philosophers whose own viewpoints are firmly within the Oxford tradition.

Anthony Flew, professor of philosophy at Reading University, expressed a not uncommon misgiving when he suggests that "the amount of Marx and Engels" that can be considered "real philosophy" is "very small." Because of this sort of resistance, and because of the inevitable tangle between changes in faculty interests and the introduction or revision of courses, new trends in political philosophy are still rather patchily represented at the undergraduate level.

Of course, all philosophy departments offer some political philosophy, including the study of Marx, and almost all now cover Marxism more thoroughly than they did some years ago. But it is clearly at the new universities that full courses on Marx and Marxism are to be found.

Sussex offers a course on Marxism which includes the work of Engels, Lenin and Marx, among others. Kent offers a philosophy of science course including the study of Marx and Marxism; and a dialectical materialist course. Warwick offers a full Marxist course and Southampton a course on Hegel and Marx. Only a few of the older universities make similar offerings: Bristol, which has an unusually flexible curriculum, has introduced courses on "Marxism" and "socialism," and Dundee and University College, London, have full Marxist courses.

The increase of interest in existentialism, phenomenology and other continental movements has developed slowly over the past two decades, paralleling an increase of interest in British philosophy in continental countries, particularly Germany and Belgium. A handful of American and British philosophers are

attempting to bring the two formerly apparently irreconcilable approaches closer together, using philosophical techniques drawn from both sides.

Works by English philosophers—Charles Taylor on Hegel and Anthony Mann on Sartre—have helped establish a respectable enough place for continental philosophers in England for almost all universities now to offer courses at least on Sartre. If on no other modern European philosopher.

Keele—traditionally a bastion of Oxford philosophy—makes some study of Sartre compulsory for all philosophy students, and offers optional courses on Schopenhauer, Nietzsche, Bergson, and conservative approaches, has succumbed to student pressure for courses on Marxism and existentialism, and by appointing a new faculty member specifically to teach Marx and Sartre.

The significance of this trend can only be fully appreciated if it is remembered that many linguistic philosophers have considered modern continental philosophy to be really "philosophy" at all. Only 10 years ago it was fairly commonplace to regard Sartre as interesting merely because his "mistakes" could be used to illustrate the hopeless conceptual knots in which a non-analytical philosopher must inevitably be himself. This view still persists, but it is no longer held nearly as widely or confidently as it was.

Alan Montefiore, of Balliol College, Oxford, the only member of the Oxford philosophy faculty with a deep interest in modern European philosophy, feels that "a lot of people recognize that it's a good thing I should be doing it. Vleldig Trauch or Spanish academics can be sent to me. Fifteen or twenty years ago I might have been thought to be letting the side down by taking such things seriously." It is significant that this tolerance exists despite Oxford's tradition as the power-house of British analytic philosophy.

Oxford does not yet offer full undergraduate courses in modern continental philosophy, however, since the system of divided responsibility for undergraduate teaching between university and colleges makes it impossible in effect for one philosopher to run a course single-handed. The nature of Oxford's college and tutorial systems makes it, with Cambridge, perhaps the least amenable of English universities to curricular change.

It is of the new universities, one or two of the English provincial universities, such as Bristol and Manchester, the Scottish universities and some of the polytechnics, that modern European philosophy is taught most thoroughly. Generally speaking the new universities, founded in an experimental spirit, lacking subject traditions and possessing a relatively high degree of curricular flexibility, reflect most changes in academic fashion more rapidly than other institutions. Sussex, Warwick, York and Southampton all have comprehensive courses in European philosophy.

"What I'm trying to avoid," says Mr David Wood of Warwick, "is to teach a little bit of Sartre without giving a grounding in the whole continental tradition out of which Sartre's work came." Mr Wood's present course is

begins with Rousseau and Heidegger and covers European philosophy up to 1950; he is planning a "really recent course" including "up-to-the-moment" continental philosophers.

Professor Anthony Moseley, at Southampton, teaches Kierkegaard and Sartre, with some consideration of the phenomenological movement. His aim is to enable students to integrate British and continental philosophy within the same framework.

"The difficulty in some places is that they try to teach things in very separate departments. I think it's silly to cut things into bits. One's got to see that some of the same problems are being discussed in different terms. . . . The background reading for my course always includes a clunk of the *Tractatus*."

Professor Wolfe Nays, at Manchester, has made his department a centre of modern continental teaching. The Bristol philosophy department includes Edo Pivcevic, who has written a work on phenomenology.

Some of the polytechnics, such as North London and Liverpool, are strong in European philosophy teaching because able young philosophers interested in the subject have found it difficult, in the contracting job market, to gain employment in universities.

In Scotland, which has its own tradition in philosophy, and has always had close connections with the continent than English universities, the study of continental philosophy, together with the history of philosophy, has always had an important place. Continental philosophy "has never been Cinderella," says Mr John Llewellyn of Edinburgh University. It has "never been pushed out by interest in conceptual analysis."

One of Edinburgh's special subjects includes phenomenology, structuralism and existentialism, and Aberdeen offers courses on phenomenology, existentialism and Hegel. The Irish universities, too, have never been dominated by English philosophy, and offer full courses on European movements.

The increased diversity in philosophy teaching in English universities is seen very clearly by comparing one university department with another—Manchester with Oxford or one of the London colleges with Bristol. But an increased diversity now also exists within many individual departments or schools, especially at the new universities.

Sussex is the most notable example, offering optional courses in madcap philosophy, post-Kantian idealism, Marxism, contemporary European philosophy, logical positivism, Hindu religion and Kant and Hegel, among others. More than any other British university, Sussex philosophy department follows the American pattern, making offerings in virtually every area of philosophy and allowing students a completely free choice of courses.

To some philosophers in more traditional departments this freedom borders on anarchy and scandalous. "You can't be sure of anything," says one of the department's senior members, "because someone coming from these places is bound to have a different view of the world." Professor C. W. K. Mundle, of Bangor, claims that "many have read nothing written before 1900; many have neglected the history of knowledge and many have never done the hard core."

Lincoln and East Anglia, as well as Sussex, are mentioned as having gone too far in privileging a narrow philosophical canon, and in favouring more variety and greater choice seems, however, likely to continue.

The colleges of education, as well as many universities, are now also offering a greater range of philosophy teaching. With the introduction of bachelor of education courses in colleges of education has come an interest in teaching "pure" philosophy rather than merely the philosophy of education.

At Westminster College of Education in Oxford, third year students study analytic, contemporary and political and social philosophy, including the study of Sartre and other modern continental philosophers.

Among English philosophers still working in the British analytic tradition are many important and highly-respected names: Susan Brice, Dunn, Pease and Sainsbury, among others. British analytic philosophy is far from moribund, though it is now embracing a wider variety of approach than at the time when a few key figures dominated the scene.

At King's College, London, Professor Peter Winch is teaching a locally Wittgensteinian "turn-of-mind" to maintain the Wittgensteinian pre-occupation with the relationship between thought and reality has been replaced as a result of Austin's emphasis on language. Here's "an answer" to a question posed around traditional subject boundaries, most notably by John Rawls' important work *Theory of Justice*.

Ten or 15 years ago philosophers had a pretty clear idea of what they were doing in moral philosophy, according to Alan Montefiore: now they are much less clear.

"The younger philosophers' Gods are different from the older ones," says David Hamlyn. Americans like Quine and Davidson are in the ascendant, and the old Kripke are in the background. The strongholds of logic, Chomsky and Wittgenstein and Marx and Sartre, are gaining increasing influence in British universities.

Sociology and the mania for interdisciplinarity

David Dewey argues that interdisciplinary studies can debase the status of sociology as a science of man

It has become commonplace in recent years for universities and colleges to offer degree courses in what might be called composite subjects in which several established disciplines are brought together under an umbrella title.

To my own institution, social science and business studies degrees. It is claimed that the strength of this learning is its "interdisciplinary" quality.

In addition, sociology is often regarded as a residual frill to buttress the interdisciplinary cause rather than as a distinct perspective on human experience.

The very nature of interdisciplinarity study assumes that there is a legitimate distinction to be made between subject areas. Teachers need to consider, therefore, whether there is educational advantage in blurring this distinction or whether this trend is opening the door to confusion.

After all, to hold interdisciplinary seminars is in fact to present students with an additional subject to study in an already composite course. This creates a severe problem when constituent subjects involve totally unrelated lecture courses and reading material.

So sociologists may have particular cause to question the desirability and efficacy of interdisciplinary studies.

Nevertheless sociologists interested in structuralism are aware that there is a sense in which the interdisciplinary nature of learning is inevitable. Structuralists would argue that all forms of human reasoning are essentially the same and that visible variations are but transformations of a common pattern.

The limitations placed upon human thought by the structure of the mind involve a necessary and inherent relationship between disciplinary fields which does not need external amplification.

My own polytechnic, however, has a major emphasis on interdisciplinary studies. And the sign is that this will increase as modular degree courses gather momentum to give students greater choice. The DfEE, too, is part of a composite educational package.

Perhaps sociology can shed some light on this matter for making a virtue out of necessity. Alfred Kroeber distinguished between the "natural attitude"—that is the attitude of ordinary people in everyday life—and the "reflexive attitude," which brings some scientific perspective to bear on daily experience.

All traditional academic subjects tend to the world which members of the public are likely to encounter. So an interdisciplinary encounter would seem to require the familiarity of staff and students with several scientific attitudes.

With first year undergraduates, my own experience would suggest that this condition is not satisfied. What really happens, indeed, all that happens, is a dialogue in the perspective: speakers and hearers are both sure of having in common.

The Middlesex Polytechnic the undergraduate courses in social science and business studies include a "problem-solving exercise" in social sciences, which is a subject name for several different projects, the joint first-year course in social science and business studies has recently been abandoned for a totally interdisciplinary course.

Members of staff for sociology, anthropology, psychology and other disciplines are asked to participate in the scheme, but do not actually teach their own subjects. In what sense is this interdisciplinary encounter?

The staff do participate as specialists in the learning situation, so that the learning situation is not a social science where scholarship will inevitably lead to breadth of learning, and where the curriculum calls for concentrated effort rather than seminars about concentrated effort.

The author is lecturer in sociology at Middlesex Polytechnic.

Where black is not so beautiful

Alan Phillips discusses the problems of black students at the University of Rhodesia

The University of Rhodesia is set some three miles outside the centre of Salisbury in one of the more affluent white suburbs, Mount Pleasant. Set in 474 acres, the buildings and the sports fields are beautifully landscaped, being kept in good order by the many African gardeners—a luxury that can only be afforded by the low wage-levels of Africans in Salisbury.

The buildings were constructed in the late 1950s, and these, together with the few that have been put up more recently, could be the envy of the majority of British universities. The extensive facilities, together with fine veldt climate, lucine a visitor to believe that this is an ideal environment for a university. The perspective of a Rhodesian African student will be quite different when he views the university. Zimbabwean primary and secondary education, although of a high standard, is harshly discriminatory, and only a privileged few are able to benefit from a level of university education.

The most recent Rhodesian Government figures for 1974, show that the total number of Africans at school is just over 810,000 and yet there are less than 34,000 (4 per cent) in secondary-school education, and only 681 (0.08 per cent) in the sixth form. Comparative figures for Europeans (old Asians) show that 42 per cent of school children are in secondary schools, and over 7 per cent are undertaking post O level education in secondary schools.

The 300 or so Africans who sit in the lecture halls of the university, both in the number of levels passed and in their quality. Almost all of them are academically acceptable to the University of Rhodesia (minimum qualifications, two A levels and one Government provided only 50 new scholarship loans to Africans last year. The very large majority of these are awarded to those who agree to accept Government employment as teachers or lecturers on completion of their training.

The students are warned that if they take part in political activities their loans will be taken away. This has been alleviated by scholarships awarded by international sources, primarily the World University Service and the World Council of Churches. These scholarships impose no constraints on the politics the students and are available for all subjects of study.

An African student will come up to the University of Rhodesia knowing that he (or she) has every academic and social obstacle to be overcome at a university which has a high academic elite who, by obtaining a degree, may be able to help his family and himself break away from generations of poverty.

He will be well aware of the police of African nationalism and is likely to be deeply committed to furthering their aims. Nevertheless, with the political constraints to Government awards, and the very heavy responsibility that the student has towards his family, there is little scope for political action, and tremendous pressure on him to be successful.

The student will already know the recent history of the university from African students who return to school to talk about university life. He will know of the 355 students who were arrested for taking part in the 1973 demonstrations and know that 107 students were imprisoned for periods ranging from three to 12 months.

He will know that during the trials a number of African student informers were exposed, and of the overtly political nature of the imprisonment. He will also know that over 30 per cent of first-year students are not admitted into the second year of studies through failing their first year examinations, and he will know that many of those students worked diligently through the academic year. Consequently, this does not incline an African student to believe that this is an ideal environment for a university, and many ways is multiplex;



On its construction in 1957, the University of Rhodesia in Salisbury was held up as a symbol of the integration of black Africans into a multi-racial society.

Although primary and secondary schools are segregated, the university is not; there is no evidence of discrimination in the award of places and the university would regard itself as having no control over the Government's discriminatory awards to students.

It does not take long however, to discover some of the anomalies of this multi-racial community. As the president of the students' union is black, the vice-president must be of a different racial group and is white. The African students consequently see themselves as represented by the president and the European students by the vice-president.

Sports teams are in theory multi-racial; the Africans choose to play football and tennis, the Europeans rugby, hockey and cricket. The large majority of Africans choose to live in residence, otherwise they must travel to the African townships over 12 miles away from the university. European students prefer to live out of campus, perhaps sharing a house in one of the nearby white suburbs.

There are over 200 full-time teaching staff employed by the university, of whom eight are African; there are 35 senior administrative staff, of whom one is African. This is an area in which serious criticism could be levelled at both the university departments and the university as a whole.

There are well over a thousand Zimbabwean graduates both inside and outside Rhodesia, many of whom are able and pleased to accept a post at the University of Rhodesia.

Although there are some who could not or would not return to the country before majority rule, there is no boycott by Africans of the university (the secretary of the African National Council in fact a lecturer in sociology at the university), nor does the acceptance of a post at the university by an African imply an "Uncle Tom" attitude, or an acceptance of the status quo.

During a recent stay at the university, I had an opportunity to have substantial conversations with a majority of the African staff, for whom (and the African students) have the highest regard. Their academic records and reputation are high, and it is very surprising that none of the African academics have a more senior position than lecturer.

Without being privy to the confidential discussions of selection committees and private conversations and correspondence, it is impossible to establish why there are so few Africans appointed, and none at a senior level. It may be that the fears of the majority of the white staff of an African take-over affect their judgment.

During my short visit, I heard a substantial number of detailed allegations of racial discrimination by European staff against African students. The substance and the number of these allegations, made by African and European staff and students in academic and social matters, make it difficult to believe

that racial discrimination does not exist.

Indeed one has the distinct impression that certain European staff are quite contemptuous of African students. As the university is in many ways a microcosm of a wider society, this is not surprising.

Nevertheless, urgent action is needed to restore the confidence of African students in the university, and if this is to be a truly multi-racial university, allegations of discrimination by academic staff must be investigated by blacks and whites with sensitivity and thoroughness.

It is unlikely, in the foreseeable future, that African students will regain confidence in the university authorities and administration. The events of August, 1973, and the heavy disciplinary action that the university took, leading to demonstrations and 155 arrests, will not be easily forgotten.

The genuine belief of the principal in a multi-racial university, and his personal action assisting African students who are currently being held in detention for allegedly attempting to return to the university, may help. But unless the university is able to restore the confidence of Zimbabwean students, it is clear that very different times lie ahead.

Exactly what does lie ahead for the university will very much depend upon much wider political issues. There is little doubt that there will be substantial changes in the university either on majority rule, or following a constitutional settlement leading to majority rule.

In the near future, attempts may be made to lower the academic entrance level one year post A level, and interestingly, this is not only favoured by the Smith Government, but is also likely to be favoured by the African nationalists, although for quite different reasons.

There is considerable concern in European educational circles in Rhodesia at the large numbers (2,015 in 1974) of European students who are studying in higher education in South Africa compared with those still in Rhodesia (707). The Government believes that by reducing university entry qualifications to those of South Africa, fewer students would go abroad.

If on the other hand there were an African nationalist government, it would be more likely to make university entrance level one year post O level, with only one year of extra, twice as many students could matriculate with exactly the same number of sixth-form school places.

At the moment only one in 10 O level students is able to go on to the sixth form, because of the shortage of school places, and this would be one method of partially relieving the bottle-neck.

The author is general secretary of the World University Service, and has recently returned from a visit to Rhodesia.



The Times (London)

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Room 541

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Washington D.C.

Harvard loses Kennedy library to Boston

A memorial library of all the archives and papers of President Kennedy is to be built at the University of Massachusetts in Boston instead of at Harvard as the President's friends originally intended.

Senator Edward Kennedy announced last week that after 12 years' negotiation the trustees of the Kennedy Library Corporation had decided not to press for a site for the library and museum at Harvard, Kennedy's old university, because of the growing opposition to the scheme by Cambridge residents.

Instead, a 10-acre site has been chosen overlooking Boston Harbour at the relatively new State University. The land will be donated to the Federal Government and it is hoped that the library, containing all the presidential papers and the museum of photographs, gifts and Kennedy's personal possessions such as his rocking chair, will be open by 1979.

The announcement is a great coup for the University of Massachusetts. A spokesman said everybody was "jubilant". Although the university will have no control over the library, it anticipates an enormous flow of donations of political science, political economy and history which will make Boston an important centre for research in these fields.

Harvard, which fought hard for the library, is bitterly disappointed. After the announcement Dr

Nathan Pusey, Harvard's president issued a single sentence reaction wishing the project well at Boston. Harvard had planned a Kennedy School of Government and a Kennedy Institute of Politics and had already donated the land to the Federal Government.

But the scheme ran into local opposition. Residents were afraid the museum would bring far too many tourists into the already congested Harvard Square area; and those in poorer neighbourhoods near by were afraid the consequent rise in property values would force them out.

When it became clear that the residents were ready to go to court over the project, the library's trustees announced last February that they were looking for an alternative site. Harvard then proposed siting the library or the university and putting the museum elsewhere, but the trustees decided to keep the two together.

They finally chose Boston because the campus was close to the sea, one of Kennedy's great loves, was easily accessible to the public and the local community was eager to have the library.

The Boston campus is an offshoot of the university's main site at Amherst in central Massachusetts. It has grown rapidly in recent years, but until last week's announcement did not have the same cachet as the many rich private universities in the area.

Massive drop in enrolments after 1980 forecast

A sharp decline in student enrolments after 1980 is forecast by a specialist in population analysis at Yale University.

Despite the record rise in enrolment this autumn, Mr. Seyden Dresch said there would be virtually no increase between now and 1980, followed by a 46 per cent decline between 1980 and 1990, and a further drop of 12 per cent in the next 10 years.

Mr. Dresch said that the number of educated persons on the labour market would decline from a peak of 1,400,000 in 1983 to about 700,000 by 2001.

Mr. Dresch, head of the Institute for Demographic and Economic Studies, now has a Government grant to test these hypotheses.

Row spreads over female v-c

The appointment of a woman repeatedly rejected by the teaching staff of the University of Texas at Austin (THES, October 10), has caused such controversy that a special committee appointed by the American Association of University Professors is meeting in Austin this weekend to discuss the issue.

Since the appointment of Dr. Lorraine Rogers, lecturers at Austin have refused to cooperate with the administrative staff in the appointment process. The committee is to discuss the issue.

Their principal complaint is that their advice was not listened to by the Board of Regents which made the appointment.

The issue has become important for several reasons. To some extent it is a test of the ability of teaching staff to influence appointments made by university regents. The fact that the staff's advice was not followed has been taken by the AAUP, the main university teachers' union, as a threat to the principle of academic involvement in campus government.

Second, whether Dr. Rogers' appointment was influenced by her sex is a particularly delicate matter. Even if it were not, there is a general feeling among many lecturers that some colleagues are practising "reverse discrimination" in an effort to increase the proportion of women or minority groups—mainly blacks—in academic positions.

The panel appointed by the AAUP will not hold an investigation into the specific case of Dr. Rogers, but will try to define what the teachers' position should be on the issue.

Colleges move to tighten marking

from Angela Stent

CAMBRIDGE, MASS. In the wake of widespread criticism of the inflation of the American grading system, a major assault is being mounted throughout the country to ensure that only those students who really deserve As and Bs receive them. Recent experiments in playing down the importance of grades or abolishing them altogether are being phased out and a return to more traditional evaluation is in full swing.

Recent surveys show that grade-point averages have risen steadily since 1960. According to one official at the University of California in Los Angeles a "gentleman's C" is now a "gentleman's B".

At Princeton University last term nearly 70 per cent of the grades were As and Bs. These figures reappear in surveys of the marking practices of colleges throughout the country.

A Michigan State University report, which surveyed 197 institutions, concludes that current United States grading practices have destroyed "the whole concept of excellence" in higher education, and a University of Massachusetts education expert describes the present grading system as "about as accurate as police estimates of crowds at peace marches".

Hard grading disappeared during the days of student revolts in the 1960s. Grading was then considered "elitist" as a way of making meaningful distinctions between human beings. At the time, hundreds of colleges established pass/fail systems of grading, with no distinction between good and bad.

The Vietnam war compounded this trend, according to one academic expert. The war was a common factor that giving low grades to students might mean the loss of draft-exempt status; the realization that grades could dramatically affect the future of their students, made them upgrade their marks.

Now, however, many colleges feel that this trend must be reversed. At Stanford University, for example, where there have only been grades of A, B, and C since 1970, the D grade was reinstated this autumn.

The University of Bridgeport in Connecticut has reinstated the failing grade of E which had been replaced by "no credit" grade.

At Dartmouth College in New Hampshire new faculty rules have considerably tightened the awarding of honours to graduating students and have set limits to the number of high grades granted. Harvard has also tightened its faculty that grades must be lower than they are at present.

Chilean economist stays in gaol

Two American universities have offered to employ a former member of the Allende Government in Chile. Dr. Fernando Pizarro, an expert on economic management, has been in prison since the military coup in September 1973.

But the universities involved, Stanford University in California, and the University of Rochester in New York, were informed this month by telegram from the Chilean Minister for Justice that Dr. Pizarro faced trial before a military court. No charges were mentioned.

An Amnesty International group in San Francisco has begun working for the release of Dr. Pizarro.

Public 'disillusioned' warning

Professor Robert Wood, president of the University of Massachusetts, has warned in a major speech of growing disillusionment with higher education.

New York proposes pay cuts and fewer staff

from Thomas Cahill

NEW YORK. As the City University of New York (CUNY) approaches ever nearer to its deadline for cutting \$55m from its budget for the spring semester, ever more desperate remedies are being considered.

The Board of Higher Education, which until recently had been unable to agree on any proposal, has now unveiled the list of budget cuts it is considering.

This list has sent more tremors through the university and the city than any earlier recommendations made by other university officials.

Its proposals are: to reduce the number of new students in February, at a saving of \$4m; to close all university facilities—including libraries and laboratories—during the Christmas and spring recesses, at a saving of \$1m.

Dismissing an unspecified number of administrators, faculty members and other staff, at a saving of \$9m.

Forced "furlough" of four weeks without pay for all administrators, faculty, and staff, at a saving of \$32m.

Collecting tuition fees for the summer session in June before the end of the current fiscal year, thus realising for budget purposes an additional \$9m.

Although members of the board have not yet formally approved these cuts, they are expected to do so at their next meeting and at the same time call on Chancellor Robert Kibben to formulate plans for carrying them out.

Dr. Kibben, who earlier produced a plan for a 20 per cent overall reduction in the university's operations (THES, October 31), has been much criticized by board members for lack of leadership in the crisis.

The board itself has also been widely criticized for stalling for so long. The board has financial responsibility for making cuts in the CUNY budget, now much reduced

because of its dependence upon the financially distressed City of New York.

Municipal officials are privately questioning the seriousness of the board's proposals, which seem to require a reduction in services but to raise so much opposition in so many quarters as to be impossible.

The shutdown on new admissions, for instance, would mean that 20,000 students, now preparing for admission to CUNY in February, would suddenly find themselves without a college to attend.

Closing libraries and laboratories during Christmas and spring holidays would mean a great deal of work would have to be done by part-time jobs who say on these periods far catching up with papers and projects.

Wholesale dismissals will hardly appeal to faculty members, especially when it is widely believed that one third of the 17,000 member faculty are scheduled to be laid off. The Professional Staff Congress, the faculty's union, claims that the unpaid "furlough" is illegal and has already announced that it will fight it in court.

City officials, who see the proposals as an attempt to put political pressure on them to restore additional funds to CUNY, are particularly unresponsive to the board's pleas for early collection of summer tuition fees—just the sort of budget juggling that got New York City into trouble in the first place.

In a related development, 36 private colleges and universities in the metropolitan area have made a bid to accept some of the students that CUNY will probably have to drop.

The 36 institutions say that they could welcome 23,000 undergraduates and graduate students from CUNY, 14,000 of whom would be able to attend their schools without paying for tuition, just as they would have attended CUNY 10 years past.

The colleges argue that they could educate the students more cheaply than CUNY has been able to do and that State funding should be increased to make up the balance.

Horrors of academia

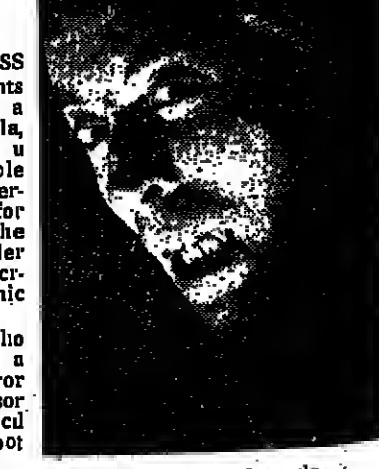
from our correspondent

CAMBRIDGE, MASS. Since the mid-1960s, when students in many American colleges won a voice in their college curricula, many universities have added a untidy collection of fashionable courses to their traditional offerings to placate student demands for "relevant" courses. Under the general rubric of "popular culture", many of these new offerings defy conventional academic categorization.

This autumn, for instance, the University of Florida is offering a course on "Literature of Terror and Horror", in which the professor, arrived at the first lecture wearing a white turtleneck and a four-foot black constrictor.

Professor Florio Zbar, who teaches the course, insists that her lectures attract students who "wouldn't give Chevrolet a chance anyway" and who benefit by their exposure to perfectly respectable authors of terrifying tales—from Euripides to Edgar Allan Poe.

Other popular courses include lectures on television programmes, "relevance" courses, and a new life in outer space, monster literature, film appreciation, detective novels and mountain-climbing for the environmentally conscious.



Christopher Lee's Dracula.

To keep up with the constantly shifting demands of students the University of Wisconsin has set up a special division of contemporary trends, staffed to teach students the courses they request.

"One professor here has begun a course in designing the perfect catch-all course for all interests," says a student. "The title is 'Survival in an Uplifted, Crowded, Polluted and Changing Society'."

New programmes for old

A college-level programme for the elderly has had such success in New Hampshire that it is being spread to all six New States next summer.

The programme, called "Older Americans Resource Project", is a set aside voluntary space where the elderly can study and learn. The programme is being run by the State of New Hampshire.

About 300 people, ranging in age from 55 to 94, enrolled last summer in five college and universities in New Hampshire. Next summer the programme is planned for 2,500 people throughout the New England region.

Australia

Coalition says tertiary studies will stay free

from John Kirkaldy

CANNBERRA

If the Liberal and National Country Parties are returned at the General Election on December 13, they will "examine closely" the former Labour Government's proposal to merge the Universities and Advanced Education Commissions.

This pledge forms part of the education manifesto issued by Senator Margaret Guilfoyle, caretaker Minister of Education.

The manifesto says that "although we recognize a need to seek greater coordination between the bodies involved in tertiary education, we believe much of the value of the two commissions has stemmed from their distinctive nature".

Other promises include a commitment not to reintroduce fees for tertiary students, the maintenance of education assistance schemes "at appropriate and realistic levels", and continuance of postgraduate awards.

The two parties also say that they will "determine the feasibility of introducing a comprehensive tertiary loans system".

The Liberal Party emphasizes, too, the need "to recognize the value of technical education and give due recognition to the contribution it makes to society".

In general terms, the two parties call for a widening of educational opportunity, accompanied by closer co-operation between the two bodies.

Mr. Kim Beazley, the former Minister of Education, underlines the Labour Party's record since 1974-5.

The experimental university of Paris Vincennes, situated on the eastern fringes of the city, is once more fighting for survival. After closing last year with the Secretary of State for Universities over admitting non-bachelor students (THES November 29, 1974), Vincennes is now in real danger of being closed as a result of severe overcrowding.

In some respects Vincennes, also known as Paris 8, is a victim of its own success. Hurriedly built in the wake of May 1968 as a testing ground for new ideas in university teaching, it has since grown to a phenomenal rate.

Designed for 7,500 students, principally in arts subjects, Vincennes now has a student population of over 30,000. The past year alone has seen an increase of 36 per cent in the number of students, and a further 10 per cent in the number of students at a time when staff have fallen off in enrolment.

One department alone, town planning, has an increase of 830 students this year bringing its total to 3,500. The numbers of the staff (the same number as last year) contracted to teach in the six classrooms, which provide a total 300 sq metres of floor space.

Despite these increases no additional premises have been built. The university possesses only two lecture halls, and a half spare metres of floor space for every student enrolled. The teaching staff stands at one of the lowest levels in the country.

The flood of students arriving at Vincennes this year is largely accounted for by the university's popularity. From its earliest days Vincennes has attracted applicants with the motto "the bachelors' trade".

Measures designed to reorganize second-year studies (which have been announced by M. Jean-Pierre Soler, Secretary of State for Universities).

The new plan—the fourth of its kind in under two years—is intended to complete a "three-year" scheme, a pyramidal structure of three successive two-year university diplomas.

The proposal, involving two distinct levels of study, will give a much more vocational bias to university training. The first level, leading to the licence, will provide students with the rudiments of their future career. At the second level, leading up to the maîtrise, students will receive more specialist and practical training aimed at specific professional outlets.



Senator Guilfoyle.

1972 and pledges that if re-elected the party will continue its policies. The five most important initiatives taken by Labour in tertiary education, he claims, are the abolition of tuition fees, the taking over of full financial responsibility of universities and colleges of education, the setting up of an Academic Salaries Tribunal, the introduction of a cost escalation index scheme and the proposed single tertiary commission.

Mr. O'Keefe points out that two new universities have been founded in Brisbane and Perth and two more will shortly start construction at Geelong, Victoria and Campbelltown, New South Wales.

Expenditure on universities has risen from A\$202m in 1973-4 to A\$302m in 1974-5. On colleges of advanced education it has gone up from A\$176m in 1973-4 to A\$361m in 1974-5.

France

'Too successful' university fights for existence

from George Morgao

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West Germany

Wide-ranging shake-up may be on way

by Günther Kloss

It appears that West Germany's long overdue General Framework Bill for Institutions of Higher Education (Hochschulrahmengesetz) may yet become law.

This is a Federal Bill by which the Bonn Government, under the general framework competence for higher education, wishes to reestablish a basic structural unity throughout the Federal Republic in the responsibility of the 11 Länder.

The Bill was first presented almost five years ago and was finally passed by the Bundestag in December, 1974, but rejected by the second chamber, where the Opposition has a slender majority (THES, January 10 and May 2).

Republic of Ireland

Union calls for theology recognition

from Peppy Borlow

THE thorny question of the teaching of theology in the universities has been re-opened with a statement from the Irish Federation of University Teachers urging the introduction of theology "at some university centres either in the inter-denominational form or in related form of religious studies".

The Irish history of religious education to which the IFUT statement refers is a long one. Institutionalized in the 19th century, it was the subject of a number of cautious initiatives over the past 50 years.

Trinity College, Dublin, although originally a Protestant institution (and one which still has a firmly Anglican Divinity School) now has a majority of Roman Catholics among its students, and has a substantial minority of Roman Catholic staff, including a priest who acts as college chaplain.

University College, Dublin, although overwhelmingly Roman Catholic in composition, is non-denominational under the terms of its charter, the Universities Act 1908.

Mr. Donogh O'Malley, the Minister for Education who did in office in 1968, had in the previous year launched a plan for a merger of the two colleges in which there would be "provision for both Catholic and Protestant schools of divinity and theology" thus abrogating the provisions of the 1908 Act.

The Government blueprint of last December on the reorganization of higher education was more circumspect, allowing only that "statutory provision shall be made for the recognition of theology (divinity) as a university discipline".

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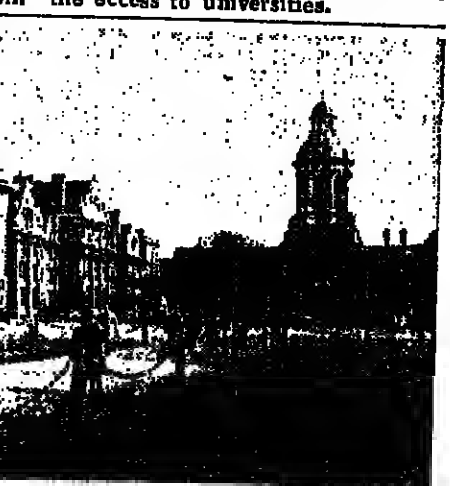
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in the first chamber. They would fail that, in the search for a compromise, many of the Government's principles have been substantially eroded. The Opposition, on the other hand, will argue that the change of heart of the Government and its supporting Parliamentary parties does not go far enough.

Unresolved differences between Government and Opposition centre on the make-up of course reform committees which the *Länder* will be required to set up; the composition of internal university committees and the voting strengths of the several groups represented on them; outside research contacts; and the vexed problem of regulating the access to universities.



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How catastrophe theory may teach us all the wrong lessons

The possibility of being able to provide a precise mathematical description of both natural and social phenomena has always held an attraction for mathematicians. From the time of the ancient Greeks, the study of the universe was based on the properties of natural numbers, through to the complex "world models" that computer scientists use to predict impending ecological disaster, the ability to represent even as the logical outcome of a set of mathematical equations has had an appeal only comparable to that exerted over the early alchemists by the notion of a philosopher's stone.

Catastrophe theory is the latest mathematical development in this tradition. It is a theory which has been created as a possible tool by which the mathematician's dream—and indeed the dream of all those who would like to see events in the natural and social worlds placed on a common logical foundation—might be achieved. As a means to this end, catastrophe theory is a mathematical analysis of the discontinuities that occur in natural processes, and of this allowing a geometric modelling to be carried out of such processes, it has already been greeted as "a new qualitative language for servicing the 'inexact' sciences".

Both the simplicity of the theory as developed by the French mathematician Professor René Thom, and the wide range of phenomena in which it already appears that it can be applied, have contributed to the wide acceptance of catastrophe theory in the scientific community. (See opposite page.)

Equally, it is perhaps not surprising that speculation should have been built up as to whether the catastrophe theory might eventually be applied to social events that have hitherto escaped attempts at mathematical formalization. After all, what political regime would not be tempted to support a research programme which promised a precise forecast of when and how it was likely to be overthrown; or which industrial company not tempted to

The changing nature and stature of the NUS

It is a measure of the increased stature of the National Union of Students that conservative students and others whose political predecessors took little or no interest in its affairs should go to such pains to organize a campaign in favour of a secret ballot for elections to its executive.

Student politicians now look, in a way they did not a decade ago, to their national union for leadership. If the call for mass ballots at Scarborough this weekend, the result will be an even more significant shift of power to the central leadership. The whole nature of student politics would be transformed: whatever the political complexion of the executive, that emerged from the checks on its actions would be weakened.

The National Union of Students has always had an inappropriate and misleading title. A national federation of student unions would be a more accurate description of a constitutional make-up. The NUS has never had more than a number union to take decisions that are not supported by its own constituents—and the poor response to its call for a secret ballot this weekend indicates that constituent unions are capable of resisting the leadership's powers of persuasion.

A directly-elected leadership would give an entirely new credibility. Nor is it at all clear that the leadership would be either more representative or more democratically accountable. For genuine and effective accountability depends on a legal relationship between those who make policy and those who carry it out. A mass ballot in the NUS would destroy this relationship between the executive

and the conference. What happens if an executive elected by the membership is instructed by the conference to carry out a policy to which it violently objects? Does it resign and leave the NUS without an executive or with an interim executive elected by the conference? Does it ignore the instructions and risk being sacked by the conference six months later?

Curiously, the supporters of a secret ballot seem to have forgotten that the NUS is not just a political body. To most students, its day-to-day work in travel, insurance, vacation employment and welfare is what matters. Conference elections to elect officers, not just on the political acceptability, but also on the basis of their capacity to administer the union's affairs, flow from the mass membership to know candidates sufficiently well to make this vital judgment. In other words, unions, potential leaders have to be able to build up a reputation and relations of trust with their members over many years. The student who is likely to be a member of the NUS for only two years has no time to form even superficial judgments.

Too many union delegations to conferences are nothing more than the political sidekicks and personal friends of the local president. Too many take no trouble to find out the views of their local union members. Some delegations, even when they have clear mandates, ignore them. But the comedy of these shortcomings lies also in the hands of those who complain that the NUS is too far from students. The real problem is making sure that the conference policy reflects the views of the rank-and-file, and the facile solution of a mass secret ballot will make no contribution to that.

LETTERS TO THE EDITOR

Overseas students

from Dr George Tolley
Sir,—Pressure is growing for increasing the differential fee charged to overseas students and, from some quarters, there is a demand for payment of full economic fees. It seems to be assumed by many that there is no longer a serious objection to differential tuition fees.

My observations lead me to conclude otherwise. Having been blindfolded into submission does not lessen objections of principle; they are driven underground. The more the universities of the world, we are almost the only ones in step. And more than this. Where else do we charge differentially for subsidised? Public transport is also subsidised, so are hospitals, so also, it would appear, is the supply of gas, electricity and postal and telephone services. Overseas visitors are not charged differentially for these services.

Why then has it become a part of Government policy that education services must be singled out for discriminatory treatment? There is as much, and as little, argument for charging an overseas student an economic fee as a home student.

Increasing the fees charged to overseas students (even to full economic cost which might give substantial income) will not balance the books of the education system or make difficult choices on priorities much less difficult. It will deter overseas students. Is this the real objective?

If some colleges and university departments are dependent almost wholly on overseas students then a scrutiny of policy on admission may be necessary, especially for postgraduate courses, and that on much more general grounds. But for the rest, as far as the money is concerned, it is not the money that is the issue, it is the principle.

Let us be hard-headed also and ask ourselves about the payoff from overseas students who are educated here. We have lost enough tolerance in the world, and income. We can hardly afford to pull up yet another drawbridge, which has carried valuable and crucial traffic, for the sake of a miserable principle of discrimination.

Yours sincerely,
GEORGE TOLLEY,
Principal, Sheffield Polytechnic.

Johnson dangers
from Mr Charles Clarke
Sir,—I have read with some interest your article in the 1980s "Towards the 1980s" (THE TIMES, November 14, 21).

Both your article and your decision to publish Paul Johnson's silly attacks can do the paper very little credit. I would have welcomed to see the conclusions of your editorialists "Towards the 1980s" (THE TIMES, November 14, 21).

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Despots

from a university lecturer
Sir,—Professor Meek's description (THE TIMES, November 28) of the University of Leicester as a "despotism" is a very progressive institution indeed, though by the end of his letter I had formed the distinct impression that he was writing in jest. It is a pity that he should have chosen to use the word "despotism" in a serious context, for it is a word which has a very specific meaning in political science. It is a word which is used to describe a form of government in which the power is concentrated in the hands of a single person or a small group of persons. It is a word which is used to describe a form of government in which the power is exercised in an arbitrary and unaccountable manner. It is a word which is used to describe a form of government in which the power is used to oppress and exploit the people.

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Civil Service fees

from Mr S. T. Cursey
Sir,—Over the past few months your columns have carried a certain number of letters about the deduction of income tax under PAYE from the fees paid to lecturers at the Civil Service College.

Your correspondents who may in future undertake lecturing for the college will be glad to know that the Inland Revenue have now reviewed the cases which are assessed for tax under PAYE.

As a result, they have decided that fees and expenses for work other than lecturing may be excluded from PAYE procedures, and accordingly the fees and expenses of people who are good enough to give occasional lectures for the college may be paid without deduction of income tax and national insurance.

Any further payment now due as a result of this decision to those who have lectured at the college in the current tax year and have received less than the full amount of their fees and expenses will be made without application. The college is writing to all the people affected to explain the position.

The college places a great deal of value on the help it receives from colleagues in economic life and I hope that this transitional problem will not have affected their willingness to help in the future.

Yours faithfully,
S. T. CURSEY,
Head of Information,
Civil Service Department.

Academic power
from Mr George Watson
Sir,—Professor Sidney Pollard's letter on the plight of our universities under a Labour Government must reach the mind of someone who cares for the excellence of academic achievement (THE TIMES, November 21).

But I cannot accept his conclusion that academics are without respect, ability or power, or that they should be content to move into smaller houses or emigrate. Some of the best of our universities have been able to survive and flourish in the face of the most severe attacks.

It is not the case that the universities are in a state of decline. It is not the case that the universities are in a state of decline. It is not the case that the universities are in a state of decline.

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Was Newton's apple a cusp or a swallow-tail?

D.D. How did you first become interested in the analysis of discontinuities, or "catastrophes"?

R.T. As a mathematician, I have always been interested in topological questions (the study of the properties of geometric surfaces under arbitrary transformations) and have never liked algebra. Much of my early work was concerned with what is called the theory of smooth mappings, and it was the discontinuities, or catastrophes, that occur in many concrete instances of smooth mappings—such as geometrical optics or the theory of envelopes—rather than to a study of discontinuities for their own sake. Later, in about 1963, I became interested in biological questions, and specifically in embryology, the study of the development of the embryo, partly through coming across the work of C. H. Waddington. D.D. Would you say then that your interest in the analysis of discontinuities was thrown up by the practical problems encountered in the study of biological development, or was it the theoretical problems of algebraic topology?

R.T. I think my interest came initially from algebraic topology rather than from a consideration of practical issues: the biological applications tended to come much later. There are a number of factors, however, behind my interest in this type of approach to such issues. One was essentially a polemic sort of mind. At that time the modernist school in mathematics was trying to expel geometry from the curriculum. I was very much against that, and I tried to prove that geometry—and especially the theory of catastrophes—was a useful approach to such issues. One was essentially a polemic sort of mind. At that time the modernist school in mathematics was trying to expel geometry from the curriculum. I was very much against that, and I tried to prove that geometry—and especially the theory of catastrophes—was a useful approach to such issues.

R.T. I believe that it could be very useful as a way of modelling all sorts of psychological activities. This idea originated from an article by Professor Zeeman on the topology of the brain, and I think that this view is basically true, that one should try to model mental activities through geometric constructions and dynamical systems. The problem is that this can be done in many ways, and one has to understand which way will be the most useful.

R.T. Yes. I think that Euclidean geometry is still a basic field which people need for developing an understanding of the world. I think it is a very great mistake of the modernist school that in countries like France, I don't know how it is in England—people are trying to suppress Euclidean geometry and replace it with some type of bastard mixture of analytic geometry and linear algebra.

R.T. The great advantage of topology is that it allows one to take a qualitative, rather than a quantitative approach to the problems. But you have to pay a price. For if you pass from the quantitative to the qualitative, in general you lose any ability to predict future events.

R.T. This seems a fairly crucial point in the way that people have interpreted your theory. It is not that people have interpreted your theory in a way that is crucial to the theory. It is not that people have interpreted your theory in a way that is crucial to the theory.

R.T. Exactly. Many people are putting too much hope in the theory, saying for instance that it can predict earthquakes and things like that. That is certainly not true, at least not in the present state of the theory. How far has the theory been developed from its initial form? Have you been able to generalize it in any way?

R.T. As far as I can judge, there has not been very much progress. Maybe I am wrong. It seems that there has been a lot of "ecological" progress, in the sense that the theory has become widely known and many people have started working on it. But the fundamental theoretical problems associated with catastrophe theory are still open, and not much progress has been made. This work is basically concerned with what could be called the syntax of catastrophes, recognizing elementary catastrophes as a way of trying to develop a global dynamical scheme which could generate a complete set of these elementary catastrophes.

R.T. Do you feel that this will be possible? R.T. Certainly. There is a great hope that theories could be developed to account for the synthesis, but for this one has to study catastrophes in a more general context. It is not true that this can be done by mathematicians alone. One has to look for concrete examples in disciplines such as geology or biology, and then try to find out the aggregating rules between catastrophes. These rules may be quite different from one field to another.

R.T. Does this say anything about the relationship between the mathematic and his applications? R.T. Exactly. This is the point at which I have a little controversy with my friend, Professor Christopher Zeeman at Warwick University. I do not think that from any mathematical theorem you can predict anything in reality. It is something very different from mathematics, and nothing can be said about that. The only thing one can say is that, because of certain theorems in mathematics, one has to expect that things will go a certain way. But you are never sure that reality will obey the theorem.

R.T. Turning to the field of application of catastrophe theory, you say that it is a question of expanding the range of examples. Which new types of examples are you beginning to look at?

R.T. I think that the most recent examples are those at the level of the exact sciences, rather than the direct sciences. I have been interested, namely, first, in psycholinguistics, or even philosophy. My own inclination is towards what we call in France the "human sciences".

R.T. In which types of areas of psychology, for example, do you think catastrophe theory might be of value?

R.T. Part of the explanation for the excitement



Professor René Thom

Catastrophe theory has been

hailed as an 'intellectual

revolution' in mathematics.

Its applications are claimed

to range from the study of

optics to attempts to model

human behaviour. René Thom, the

creator of the theory, talks to

David Dickson about its

development, its philosophical

implications, and the limits

on its use

scientific prediction or quantitative modelling. Of course, in some examples, such as Professor Zeeman's examples of heart-beat or the propagation of nervous impulses, there is some quantitative modelling, but I do not think that quantitative modelling is important in such cases. It does not bring very much that is new into the picture. D.D. Is this a limitation of this area of topology as such, or is it a limitation of the theory as it stands at the present time?

R.T. You cannot hope to carry out global quantitative modelling unless you have some sort of underlying general rule or general law—like a physical law, for example, acting on the system. But in many very concrete situations like those arising in embryology or psychology there is little hope that such underlying quantitative background exists. I myself have strong doubts about the future of quantitative modelling in many disciplines.

D.D. How do you feel about the way that catastrophe theory has been extended to such areas as psychology and biology, for example as a way of looking at the behaviour of the Stock Exchange?

R.T. I have no precise idea about that, but my feeling is that the same type of objection would be valid. It is sometimes true that through these catastrophic schemes you can obtain a fairly good quantitative understanding of what is taking place. But when you want to localise precisely where the catastrophe is occurring, where you got the jump from one price system to another, this will be extremely difficult, and I cannot see how it will be achieved.

D.D. But many people seem to hope that this will be achieved.

R.T. Of course. Many always hope that this can be done. But qualitative prediction of catastrophes is completely useless. I can predict with absolute certainty that any

Catastrophe theory, also, in its philosophical aspects, tends to revive the dreams of Leibniz of the "ars combinatoria" as a way of replacing old kinds of thinking by some sort of computation. The idea is that if we could model each mental process through some type of geometric object, then we could use these objects to some sort of combinatorial way, and this might lead to some sort of realization of the Leibnizian dream. But I would not want to retain the idea that the idea that space is the fundamental entity, the geometric continuum—what Descartes would call *étendue*.

D.D. Which particular field are you personally now working in?

R.T. I am now most interested in the field of biology, in comparative embryology between vertebrates, invertebrates, insects and so on. Putting some topology into the phylogenetic tree, so to speak. My main interest is not so much from the mathematical point of view, but from that of the old biologists, which was to find out whether there was a general and unique pattern for animal organization.

It is an old problem, but it is a basic problem which has still to be considered, despite the fact that it has been out of fashion for some while. I think that this is now the central problem of biology. People have become interested in the behaviour of molecules such as DNA and RNA; I don't deny that these issues are important, but for the basic problems of biology they are really at a lower score, a sort of irrelevant gadgetry.

For me the basic interest of catastrophe theory is that it is a theory of change. It is the first theory since Aristotelian logic which really deals with the problem of analogy. It attempts to classify all types of analogous situations, and in that respect it is a theory which has an interest both from the scientific point of view, and also from the more general philosophical point of view, concerning our understanding of how the brain works. It can really put interdisciplinary studies on a precise formal basis.

Professor Thom is professor of mathematics at the Institut des Hautes Etudes Scientifiques in Paris. He was awarded the Fields Medal in 1958 for his earlier work in topology, and holds an honorary doctorate from the University of Warwick.

What is catastrophe theory?

Catastrophe theory is essentially a mathematical way of dealing with sudden changes—or "discontinuities"—that occur in natural phenomena: the point at which a wave breaks, a cell divides, a beam collapses under stress, and so on.

Traditional mathematical techniques of analysis—in particular those developed from the Newtonian calculus—have been limited in their application to processes that are relatively continuous; where discontinuities occur, these have been isolated and treated separately as "singularities".

Catastrophe theory enables mathematicians to include what occurs at a point of discontinuity as part of a general analysis of the process involved. In particular, Professor René Thom has proved that all discontinuities that occur in nature, providing the processes to which they are due obey certain conditions, fall either into one of seven types—the seven "elementary catastrophes"—or can be represented as an aggregation of more than one of these types.

The seven elementary catastrophes have been named by Professor Thom as the fold catastrophe; the cusp catastrophe (a description, for example, of the curve formed by light reflected on the surface of a cup of tea); the swallowtail catastrophe (which applies, for example, to the early cell separation of the embryo of amphibians); the butterfly catastrophe; and the hyperbolic umbilic, elliptic umbilic and parabolic umbilic catastrophes.

Part of the explanation for the excitement

and interest that Professor Thom's theories have generated is the scientific commitment in the wide range of disciplines to which phenomena exist to which catastrophe theory can be applied.

Speaking at the French Institute in London last week, for example, Professor Thom listed some of these as being: strogolity theory and qualitative dynamics in mathematics; fast kinetics and oscillatory phenomena in chemistry; wave-breaking and phase transition in physics; embryology, evolutionary theory and neurophysiology in biology; and psychology and linguistics in the social sciences.

Although catastrophe theory does not provide a precise quantitative description of what is taking place when a discontinuity occurs in the phenomena—this is therefore in general incapable of providing any exact prediction of when a catastrophe will occur—it does give scientists an analytical technique for providing a qualitative interpretation of such an event.

Some scientists feel that this in itself is sufficient to allow the construction of elaborate mathematical "models" of complex processes in the natural world, such as the development of a single cell into a fully-grown organism, or even the mental activities of the human brain.

Professor Thom is professor of mathematics at the Institut des Hautes Etudes Scientifiques in Paris. He was awarded the Fields Medal in 1958 for his earlier work in topology, and holds an honorary doctorate from the University of Warwick.

Part of the explanation for the excitement

NOTICE BOARD

Forthcoming events

A conference on the teaching of politics will be held at Edinburgh University from March 25-28, 1976. The conference is intended for all full-time university extra-mural and Workers Educational Association staff in the United Kingdom who teach politics. The programme will include discussions on the teaching of politics to "voluntary" adults with no examinations in view. Fee: £22.00. Application forms from: R. Peter Wansell, 4 Priceland Road, Edinburgh, EH16 5TH.

"Structure Plans/Local Plans—the Relationship" a workshop to be held at the School for Advanced Urban Studies, Bristol from December 15-17. It will examine some of the operational problems that have arisen in the new planning system as between local planning and structure planning, with the aim of producing some guidelines on the relative roles of the two levels of plan in providing a framework for the development and use of land. Fee: £45.00. Application forms from: Judith Manley, School for Advanced Urban Studies, Rodney Lodge, Graze Road, Bristol.

A residential workshop on self-directed learning in higher education will be held from December 19-21 at the University of Strathclyde. It aims to enable lecturers to explore ways of helping self-directed learning in their courses. Fee: £15.00. Application forms from: D. Boyd, Laverhulme Project, Laverhulme Tower, University of Strathclyde, Glasgow G1 1XL.

"Psychology of Language" the theme for a conference to be held at Strirling University, from June 21-26, 1976. The conference is being organised under the aegis of a psychology/science committee. Its aim is to bring together scientists from many disciplines to examine developments in semantic and phonological psychology, linguistics and approaches to child language acquisition. Offers of papers will be considered and should be sent to R. N. Campbell, Department of Psychology, University of Strirling, Strirling, Scotland, FK9 4LA, by 15 December.

A residential weekend conference on "Merle" will be held at the University of Leicester, Villiers Hall, Manor Road, Leicester, from December 12-14. The aim of the conference is to provide a forum for historians, archaeologists and linguists to communicate the results of their recent researches and also to stimulate further work on Merle. Further details from B. Threlfall, Department of Adult Education, Vaughan College, St Nicholas Circle, Leicester, LE1 4LB.

The British Association for Commercial and Industrial Education is holding a national conference on employment and training of young people at the Royal Lancaster Hotel, London, on December 17. Further details from Christine Good, BACIE, 16 Park Crescent, London W1N 4AP.

The British Society for the History of Mathematics will be holding a conference on December 16 at Kings College, London. Papers will be presented by Dr. A. J. McConnell, University of Dublin, School of Mathematics, Hamiltonian, and by Professor C. W. Kilmister, Kings College, London on "Some wrong turnings in applied algebra". Further details from: Dr. J. M. Dubois, Department of Mathematics, Polytechnic of the South Bank, Borough Road, SE1 0AA.

Three lectures on the Golden Age of Edinburgh will be given by Peter Hunter Blair, Fellow of Edinburgh College and reader in Anglo-Saxon History, University of Cambridge from December 9-11 at the Curtis Auditorium, School of Physics, University of Newcastle-upon-Tyne, George Place, Haymarket at 5.30 pm.

The bicentenary of the birth of Jane Austen will be marked by an exhibition in the King's Library, organised jointly by the Departments of Manuscripts and Printed Books of the British Library on December 16. The manuscripts and the first editions exhibited will be accompanied by portraits, watercolours, prints, maps and personal relics.

Chairs

Dr John Güther, reader in pharmacology, University of Aberdeen, has been appointed to the new chair of pharmacology, department of pharmacy, Heriot-Watt University, Edinburgh.

The title of professor of urban studies and economics has been conferred on Mr C. D. Foster, London School of Economics and Political Science.

The title of professor of paediatrics has been conferred on Dr J. W. Scopes, St Thomas's Hospital Medical School.

The title of professor of clinical epidemiology has been conferred on Dr A. G. Sheper, Royal Free Hospital School of Medicine.

Mr A. Cuschieri, reader in surgery, University of Liverpool and honorary consultant surgeon, Liverpool area health authority, has been appointed to the chair of surgery, University of Dundee.

Mr C. Forsyth, reader in social administration, University of Manchester, has been appointed to a chair of social administration from December 1, 1975.

Dr D. E. Lomas, lecturer in education, University of Manchester, has been appointed to the chair of educational development at the University of the Witwatersrand, Johannesburg, South Africa from January 1, 1976.

Appointments

Universities
Hull
Director: M. Clarke (nursing studies).

London
Reader: Dr D. C. Ayres (chemistry); Dr C. D. Benoit (mechanical engineering); Dr M. A. R. Colledge (classics); Dr J. Shields (psychiatric genetics); Dr J. Silvester (preventive and paediatric dentistry).

Manchester
Senior lecturer: F. N. Bomford (child health); H. W. S. Francis (community medicine); J. P. Miller (medicine); F. S. Hisselton (morphology anatomy); Lecturers: M. A. Auestad (geography); T. C. R. Bannister (history of art); C. M. Wood (town and country planning); E. J. R. Horler (economics); S. C. Young (government); R. K. Mellor (sociology); M. Cummings (physical education); J. McArthur (parent guidance); E. M. Foulkes (speech pathology and audiology); J. A. Shaw (law); D. A. Friel (child health); K. Andrews; J. S. Jones (outgoing); C. J. Jones (outgoing); E. C. Griffiths (physiology); C. E. Hyde (psychiatry); C. M. Vaughan (clinical psychology); N. F. M. Wilson (dentistry); M. L. Tremouth (dentistry); M. H. Comfort (oral surgery); T. C. Phillips; J. M. Keady; J. C. Price (liberal studies in science); D. R. Robinson (mathematical statistics); J. A. J. Robinson (pharmacy); G. Shaw; W. L. Storrer (physics); J. H. Weir (psychology).

Polytechnic
Central London
Deo: M. Austin (school of community studies).

General
Professor Ian Lockie, professor of French, University of Strirling, has been appointed chairman of the Scottish Film Council, and as a member of the newly constituted Scottish Council for Educational Technology.

Recent publications

Sociology of Education: An Introductory Guide to the Literature, edited by Anthony Harnett (available from The School of Education Library, University of Liverpool, 15-23 Abercromby Square, Liverpool L69 3BX, £1.00) is a small booklet intended for students in the sociology of education.

Index on Censorship is published by Writers & Scholars International, Ltd, 21 Russell Square, London WC2B 5HP. This issue covers censorship in India and Portugal; Soviet official art; and the legal battle over the Crossman diaries.

Obituary
Professor Toriel Wells-Vogel, professor of sociology, University of Cambridge, died on November 15 at the age of 53. He was internationally known for his research into social change.

Grants

Universities
Aberdeen
Medicine—£13,110 from the MRC for an investigation into the causes of arterial disease and thrombosis in patients with diabetes with the ultimate aim of producing methods of prevention.

Biochemistry—Professor H. M. Kell, £24,174 from the MRC for a study on how the genetic material in animal cells is made before the cells divide; £30,920 from the MRC to assist with the purchase of an electron microscope; Dr J. E. Petherick, £15,554 for an investigation of certain components of human blood; Dr W. J. Harris, £2,587 from the MRC for continued research on the repair of damage sustained by the genetic material of cells during growth; Dr J. A. Jeffery, £4,453 from the Cancer Research Campaign for an investigation into the way certain malignant tumours are stimulated by the male hormone testosterone; Dr W. J. Harris, £4,153 from the Cancer Research Campaign for a project designed to find out the mechanism by which cancer develops in skin cancer in humans.

Chemistry—Dr G. G. Cameron, £1,952 from the Ministry of Defence in support of research into the properties of natural and synthetic rubbers; Dr P. P. Glasser, £6,397 from the Ministry of Defence for a study of thermoplastic resins for the production of silicate ceramics; Professor R. H. Thomson, £7,350 from the SRC for work on the chemistry of marine enzymes.

Birmingham
Biological Sciences—£55,927 from the Anglian Water Authority for work on the South Humberbank Salinity project under the direction of Dr J. E. Petherick; £11,812 from the SRC for research into the induction of protein uptake by non-professional phagocytic cells in physiological conditions; £15,400 from the Leverhulme Trust for research into the infection of plants by virus under the direction of Professor J. Smith and Dr K. R. Wood.

Mechanical Engineering—£6,589 from the Department of Industry to evaluate seal friction and leakage from elastomeric seals under the direction of Dr J. E. Petherick; £19,594 from the SRC for work on the detection of faulty components under the direction of Dr J. E. Petherick.

Experimental pathology—£19,574 from the MRC for research into the genetic control of immune responses to the fowl.

Therapeutic and Clinical Pharmacology—£2,526 from the West Midlands Regional Health Authority in support of research towards the work of the Midlands Adverse Reactions Study Group.

Physiology—£5,318 from the MRC for a study of the effect of the sensitivity of primary human tumour cells to drugs and hormones in a microtitre culture system.

Pathology—£5,179 from the National Kidney Research Fund for a study of glomerular morphology after haemodialysis; £5,000 from the West Midlands Regional Health Authority as a contribution to the development and extension of services offered by the computer in connection with the Regional Histopathology Data Pool.

Physiology—£2,493 from the MRC for a study of peptides in the regulation of insulin secretion and synaptic release.

Chemistry—£21,505 from the SRC for double rotor chemical accelerators.

Course news

"High Alumina Cement—The Facts" and "Energy and Economy in Building", two half-day courses organized in association with the building surveys division of the Building Surveyors of Chartered Surveyors, to be held on December 10 at the Bloomsbury Centre Hotel, London WC1. The programmes have been devised to bring up to date those dealing with alumina cement. Further details from: Mr G. Meekins, Course Administrator, Centre for Advanced Land Use Studies, College of Estate Management, Whiteknights, Reading, RG5 2AW.

The Oxford University Department for External Studies in conjunction with the School of Educational Studies, is offering a course on "The Built Environment" from December 15-17. It is intended for all engaged in teaching aspects of local studies to adults in the field of education. Fee: £15.00. Further details from: Dr D. Neave, Rewley House, Wellington Square, Oxford.

The Conference of University Administrators are holding a two-day residential course on the administration of universities, from December 15-16, at the University of Bath. The object is to provide instruction on good practice in the administration of universities. Fee: £13.25 (inclusive of accommodation and meals). Application forms from: R. M. Mansfield, Principal, Administrative Offices, University of Bath, Claverton Down, Bath, BA2 7AY.

£6,650 from the SRC for open electron x-ray diffraction studies for chemical research and incorporated levels.

Mathematical physics—£6,622 from the SRC for a study of the theory of critical phenomena superfluids and superconductors.

Physical metallurgy—£5,540 from the SRC for a study of the behaviour of interstitial loops during neutron and electron bombardment.

Genetics—£11,408 from the SRC for research of genetic variation for enzyme activity in *Drosophila melanogaster* populations.

Mechanical engineering—£28,250 from the SRC for a study into the reduction of material and energy wastage in hot forging.

Physiology—£12,748 from The Wellcome Trust Fund for an investigation into the functional organisation of the cardiovascular input to the lateral hypothalamus.

Experimental pathology—£12,696 from the MRC for an investigation of the immunological apparatus of the Dental Prosthetics—£14,350 from the SRC for a study of the mechanism of action of dental caries.

Education—£1,690 from the SRC on behalf of the company for use in dentistry.

Biochemistry—£4,067 from the SRC for a study into the influence of nutrition on lactose synthesis; £17,632 from the MRC for research in metabolic regulation of amino-acid catabolism.

Education—£1,690 from the SRC on behalf of the company for use in dentistry.

Biology—£9,311 (supplementary) from the SRC in support of studies on the development of malignancy and metastasis in barley, under the direction of Dr J. E. Petherick.

Zoology—£5,853 from the SRC in support of research on the physiology of basaloid in *Scaphiophylax*, under the direction of Mrs K. M. G. Adam.

Veterinary pharmacology—£4,757 from the SRC in support of an investigation of calcium metabolism in pregnant and foetal sheep, under the direction of Dr J. E. Petherick.

Medicine—£5,000 from the Astra Pharmaceutical Company in continuing support of cardiological research under the direction of Dr J. E. Petherick.

Psychiatry—£5,467 from the Ayrer Laboratories Limited in support of a study of butyrylcholinesterase under the direction of Dr J. E. Petherick.

Respiratory—£5,000 from Beecham Pharmaceuticals in support of research on the effect of end-organ response on the immunological response and lung mechanics under the direction of Dr A. B. Kay and Dr G. J. R. McHardy.

Cancer—£22,028 from the Cancer Research Campaign in continuing support of research on the influence of protection on hydrocarbon-induced tumours in rats under the direction of Professor A. P. M. Forrest.

Surgery—£24,462 from the Cancer Research Campaign to continue support of research on the influence of protection on hydrocarbon-induced tumours in rats under the direction of Professor A. P. M. Forrest.

Woodwork—£19,474 from the Cancer Research Campaign in support of research on immunology of the breast cancer under the direction of Dr W. J. Irvine.

One method of refining the concept of planning is by the use of a procedure attempting to "option specification". Rather than saying: "Our plan is that this or that sector should expand/contract at this or that rate", one says: "If this sector expands at this rate, then these consequences will follow. If it expands at that rate, then these consequences will follow."

From this point of view, the present arrangements, both in terms of structures, and of financial planning over time can only be seen as highly restrictive to the development of resources in response to changes in public demand, which is a free-choice system presupposes.

This seems particularly true in the case of the financial planning of the universities and the polytechnics, which are increasingly drawing students.

Open University programmes
December 7 to 12

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9.00 Open Forum
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Noticeboard is compiled by
Patricia Santinelli and
Myrna Monsurate

Jeremy Tunstall visits the University of Iowa School of Journalism

Hacks, grads and media talk among hogs and corn

Some 500 students at the University of Iowa are pursuing undergraduate majors or postgraduate studies in the School of Journalism.

Iowa is justly known as the land of corn and hogs. Its rich black soil is relentlessly fertile; highways run across flat country growing with produce and through little towns spread out below the usual neon invasions of drive-in banks, eateries, and funeral parlours.

In one such, Iowa City is the University of Iowa with 22,000 students. In addition to the 500 studying journalism another 500 students are in the speech department, much of whose work is film and broadcast.

It has 400 undergraduate majors in its journalism school this year, and 100 postgraduates. The students spend only about one quarter of their total four years following journalism or communications courses; these courses are concentrated into the last two years and all students must do a second major.

Students thus have degrees in, say, journalism and history or perhaps mass communications and sociology.

Within the Iowa school there are three "tracks"—journalism, mass communications, and communication. The focus in the journalism track is on practical press journalism. The focus in the mass communications track is on mass media sociology and their practical exercises apply all the media including advertising, media management and video. The third

"new journalism" (its author is now a reporter on the *Milwaukee Journal*), and a sociological critique of the epistemology of Paul Lazarsfeld, the survey methodologist.

The teaching staff are pleasantly varied. Two typical professors has worked at least a year or two in a daily paper and also has a doctorate. Most of these teachers should be good enough to hold their own in any university in political science or international relations or sociology.

The old criticism that journalism professors were failed journalists and/or academics seems no longer true. Such is a flood of well-qualified young American academics and there is a renewed sense that the media are where the action is, both politically and intellectually.

Recently completed theses include a literary critical analysis of the

difference of coordinate structure and of time scales used in financial control.

These are separate problems, but the time-scale element is particularly significant at the present stage in the reform of the financial aspect of higher education, because the disparity between kinds of institution and authorities is so blatant.

By a time scale in this context is meant that period of time which has been made formally critical in the financial administration of the relevant sector.

As part of a tentative theory of the place of time scales in financial administration, it might be suggested that short-term time scales seriously inhibit the development of option structures at the periphery, and increase the pressure for coordination at the centre, unless the system is to get seriously disoriented.

This is especially true in areas like education, where the state assumes a high degree of public responsibility, and where senior politicians and administrators are obliged to develop a planning rhetoric implying a far greater degree of precision and control than a reasonable democracy at grass roots would ever permit.

One method of refining the concept of planning is by the use of a procedure attempting to "option specification". Rather than saying: "Our plan is that this or that sector should expand/contract at this or that rate", one says: "If this sector expands at this rate, then these consequences will follow. If it expands at that rate, then these consequences will follow."

From this point of view, the present arrangements, both in terms of structures, and of financial planning over time can only be seen as highly restrictive to the development of resources in response to changes in public demand, which is a free-choice system presupposes.

This seems particularly true in the case of the financial planning of the universities and the polytechnics, which are increasingly drawing stud-

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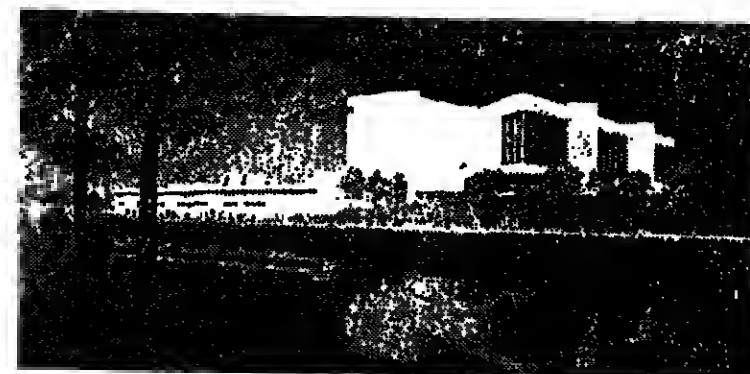
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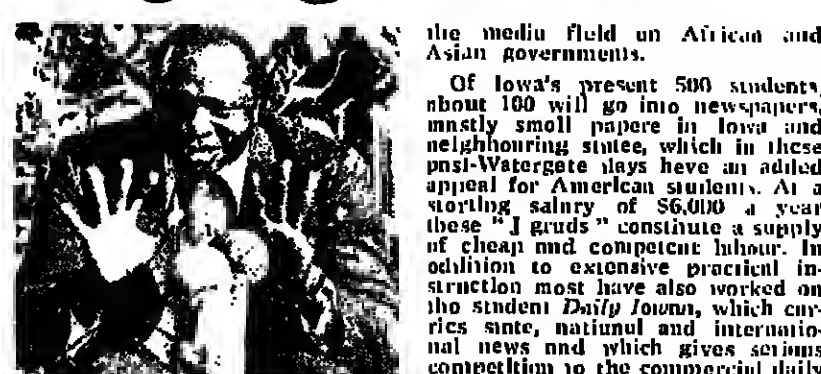
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The University of Iowa (artist's impression) which studies Amin's press.



The media field on African and Asian governments.

Of Iowa's present 500 students, about 100 will go into newspapers, mostly small papers in Iowa and neighbouring states, which in these post-Watergate days have an added appeal for American students. At a starting salary of \$6,000 a year these graduates constitute a supply of cheap and competent labour. In addition to extensive practical instruction most have also worked on the student *Daily Iowan*, which carries state, national and international news and which gives serious competition to the commercial daily in Iowa City.

About another 150 students will go into jobs in the media field: public relations, radio, magazines, advertising, house journals, market research. Others subsequently teach communications in high school (a special publication in the *Daily Iowan* for the high school journalists serves the United States).

Both journalists and academics in Britain have long been uprooted by this sort of thing happening here. But by now virtually every country in Europe (not to mention Latin America and Asia) has university-level journalism education, and has more than the token scale which exists in Britain (at Cardiff). What Iowa City has done for the last 50 years, with London to do tomorrow?

The author is professor of sociology at the City University, London.

Oneable maverick intellectual is Hamo Ilardi: German born, he worked on a small daily newspaper to update New York. His academic expertise encompasses not only mass media but also philosophy, sociology and law. He has translated for his students passages from German social scientists such as Max Weber which are not yet published in English. He is working with a colleague in Münster University, on the emigration of journalists from Hitler's Germany to the United States.

The Iowa School's former studies include the columnist Marcuse. Under the market research pioneers Daniel Storch and George Gallup, and Wilbur Schramm who has been for better or worse UNESCO's leading media expert and the single influence in

ing about teaching and learning; at least one polytechnic has for the past four years formalized annual course reviews carried out by students and staff.

The short-term release of teaching staff for the specific purpose of designing new or new parts of courses and related teaching materials is carried out in many polytechnics and colleges of education. Clearly there are important differences in organization and priorities between the various types of educational institution in this country. But this should not prevent us from learning as much as we can from each other in the area of teaching, where we are all faced with the same basic problem.

The best solution to any one problem must, of course, depend upon the institution and the people concerned, but the number of solutions to choose from can and must be derived from as wide a range as possible.

Finally, I wish to underline the importance of two pastive aspects of support services that Eric Hewton mentions: "The results of this 'client-centred' approach have on the whole been more promising," and "The use of madin, consultant support, training, rewards, and the allocation of resources are all closely interconnected. . . . The present links between them urgently need to be strengthened."

The implications of the client-centred approach are profound. First, it means that those offering such a service must put the priorities and decisions of their clients first, and concentrate on helping their clients to make decisions with which the clients are happy.

Second, the client-centred approach is only possible if, as Eric Hewton points out, the links between the varieties of support are strong. To put it very simply, I cannot pretend to offer client-centred support to a teacher who writes to produce 20 videotapes when I have no money to buy videotape stock.

Now, we have an "inspired support services framework" in a very short time it has become apparent that, given this objective, providing a client-centred support service within this framework, we are quite simply overwhelmed with demands for assistance from teaching staff wishing to teach in different and improved ways.

Each polytechnic has at least one senior academic with specific responsibility for promoting new think-

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The author is coordinator of the Educational Development Unit within Learning Resources at Brighton Polytechnic.

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Noticeboard is compiled by
Patricia Santinelli and
Myrna Monsurate

BOOKS

Bourgeois coming of age

The Age of Capital 1848-1875
by E. J. Hobsbawm
Weidenfeld & Nicolson, £8.50
ISBN 0 377 76992 8

Few historians writing in Britain today move with greater ease between economic and general history, and are fuller in depth with a larger number of western cultures and languages than Professor Hobsbawm. A large-scale study by him on a critical phase in the development of western civilisation and its impact on the rest of the world is a major event in British historiography.

This volume is part of the History of Civilization series and is explicitly intended as a continuation of his earlier *Age of Revolution*. The beginning of its time span has a clear political meaning; it indicates the end of a phase of economic development, so that the limits of the volume serve to emphasize the interdependence of economic and political history which is one of its main themes. In this period modern industrial capitalism experienced its youthful dawn of hope and of unimpeded expansion.

Here was the great secular boom, the investor's paradise, the single inflationary interlude in a century of deflation — though, to be sure, the deflation of the rest of the century represented not so much stagnation as the satisfactory reduction of real costs. Manufacturing exports and large-scale investments originating in Britain and some small enclaves of Europe and the United States had broken out of their earlier limits and found the world open to receive them. The credit multiplier was only the most prominent and the prototype of numerous mechanisms that were invented, with a fertility which recalls the inventiveness in science and technology to channel the savings of Europe into railways and other public works to develop the economies of the world.

In those good years, the world appeared to repay the capitalists of Europe for their efforts. Vast gold discoveries in California and Australia sustained the gold boom; new commodities to enter world trade in mass quantities, like rubber or guano, or old ones, like tea, sugar, cotton and grain, seemed to justify the railways, the docks, the steamships — and the speculative hopes of the stock exchanges of London, Paris and Amsterdam. The world became one, being linked not only by trade routes and communications, but also, or so it seemed, by common incentives, common anxieties and increasingly even by a common culture. In the capitals of Latin America, in the cities of India and Japan, even along the rivers and trading posts of Africa, the European merchant would find elated spirits whose systems of values were recognizably moving closer to his own.

Elemental economic forces of this kind leave their imprint on the political scene, and hence the date of 1848 takes on a new significance. For while in the earlier volume it marked the culmination of a revolutionary phase, now, from an interim standpoint, it is seen to mark its end. Suddenly, the home base seemed safe from capital from attacks from below, as the great boom of 1850-57 provided positive opportunities for the evidence, artists and shopkeepers who had led the revolts in the European cities. By 1870, when the European continent accepted that a repetition of 1848 was unlikely for a long time, its labour learnt to make its claims within the system rather than against it.

While outwardly the revolution appeared to have failed, and the same dynamics, the same traditionalist ministers re-emerged in the capitals of Prussia and Germany, of the Franco-German Empire, of Italy, the dust had settled a new relationship between capital and the ruling classes was seen to have emerged; legally, socially, economically, capital found its barriers reinforced, its claims met and its profits smoothed. Governments knew they needed their capitalists, if they were to keep up with "progress" and the powers it promised. Even the Third French Republic and the British Liberalism of the 1870s were left, nevertheless, outside



"The middle-class home contradicted all the values of the outside world."

the United States (after it freed the slaves) and possibly Great Britain; but the problems that were to arise from this failure, such as the political power retained by the agrarians while their economic importance was declining, or the contradiction between the nationalism of the great nations which visited to smother that of the small (Germans against the Czechs, Spaniards against the Basques and Catalans, and the British against the Irish), all these were to emerge in full only after the end of this phase. The discussion on nationalism, the curious mixture of realism and irrationality, self-sacrifice and racialist reaction, and progress, forms one of the most perceptive and satisfying sections of the book.

The role assigned to the working classes is, somewhat surprisingly, a minor one. The great gulf between the skilled artisans, the labour aristocracy on the one hand, and the mass of the poor on the other was, if anything, still increasing in this period. While it is the former who joined friendly societies, trade unions and cooperatives, seeking strength through "association", it is the latter who Professor Hobsbawm describes in terms of the survival of the homogeneous mass created by the changes of the first half of the nineteenth century.

But this does give injustice to their victory of origin and role and to the strongly traditional elements in their make-up. Many of the really poor were poor precisely because they had not been caught up in the new industrial and urban occupations. Moreover, while putting emphasis on the fact of insecurity as one of the chief characteristics of working-class existence, and, one may add, this was a high risk with the high rewards for risk-taking — this insecurity is seen not so much as a fact in people's lives, but as a problem of incentive to work, together with the problem of income. In themselves, that is, agents to be manipulated by their employers. They are seen through bourgeois eyes.

It is the bourgeoisie who receive much the most sympathetic treatment in the book; of course, this is its finest hour, before its victory was left, nevertheless, outside

this is its very own age. Professor Hobsbawm sees it largely in terms of its internal tensions — creative tensions, no doubt, of people on the move and about to reshape the earth. There is, first, perhaps the most poignant tension between the dual poles of spiritual values and material objects, which in happier ages had formed a unity. The world in which the bourgeois sought his living was so far removed from his moral ideals that the two had to be rigidly separated in two watertight compartments. Similarly, what he accepted as culture and education was quite distinct from what he required in new recruits to the business, and there is the parallel separation between the true artist, starving in his Bohemian garret, and the very different ideal which the bourgeois preached to his son — though this is to some extent negated by the fact, noted later in the book, that the successful painters, composers, authors and architects of the day all became very rich men.

Above all, there is the separation between business and the home — symbolized by a company structure which at last separated the personal from business account books, though, conversely, it encouraged the family connexion as a basis for business association. The middle-class home contradicted all the values of the outside world. It was patriarchal rather than egalitarian in rights, it was based on personal dependence rather than the cash nexus, on security rather than on competition. In part, its object was to offer a haven of peace in a world of uncertainty outside. The security and privacy of the bourgeois home life contrasted strangely with the publicity with which earlier dominant classes had used their houses, or castles, as part of their system of domination.

While others have emphasized the hypocrisy inherent in these contradictions, Hobsbawm emphasizes the internal tensions they caused the bourgeois. Even in the matter of sexual mores, with their double standard between men and women, and between the treatment of women of their own class against those of the lower classes, he is more concerned with the guilt complex — and no doubt the unappealing sex life which they imposed — than with the moral values which would be read and valued as widely as the earlier Age of Revolution and that is high praise indeed.

Below them, the "middling" classes or *Mittelstand*, the shopkeepers, artisans, and foremen, had still fewer of the advantages of the new society, their share of all its

obligations. Yet they all had a greater deal in common, including the powers to command, a sense of personal achievement, and arrived from it, a sense of moral superiority. This might be deemed an illusion, were it not constantly under attack from the fear of sinking down, not because of any demerit but because of the unknown vagaries of fate, to lower levels from which it had cost so much to emerge.

The third large group to be treated in some detail, beside the bourgeoisie and the industrial employees and city dwellers, consists of the agrarian population. The world contained an immense variety of systems of landownership, holdings, technologies and marketing arrangements, appropriate to the different climates and soils on the one hand, and social developments on the other. All became subject now to the same stimuli exerted by the advance of capital, and there is great interest in the variety of responses provoked, from European and non-European farmers, from large and small farms. But the more successful adaptations tended to fall into one or other of two main categories: the "American" solution, of free, capitalistic, independent farmers, and the "Prussian" solution of large estates being themselves on a dependent and underprivileged work force.

All these are large themes, and while they are treated with great skill and verve, supported by an impressive mass of fine detail, there is not much here which could be claimed as controversial. It is relatively easy to be a Marxist historian for this period, for the Old Man, who lived through it, laid down the guidelines, and it would be hard to better him. What Hobsbawm set out to do was rather to combine the different elements, to "make sense" of the period as a whole, and, taking it all in all, he has triumphed.

It is doubtful whether such integration can be rightly applied to the cultural chapters, though they are heroic in scale, and equally wide-ranging. The natural sciences, which were becoming the religion of the age, were most easily fitted into the picture. Charles Darwin and Alfred Russel Wallace, for example, were describing the ethos of their own society as much as they were theorizing about biological evolution. Yet one doubts whether the approach adopted here, of describing the work of the great men, the innovators, working sometimes at very abstruse frontiers of knowledge, is the best for showing the place of science in the "age of capital".

The treatment of the arts is even more unbalanced. Neither the seminal dates of the study, nor the necessarily brief generalizations, constitute an apt method in this field. The words "however" or "but" introducing almost every other sentence, prove the need to modify each preceding statement and hence, it is not clear that the question how far each artwork, in every major country, was greater or lesser in this period than in the preceding one is a very profitable one to pursue. Yet the author is always well-informed and often stimulating in this sphere.

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On the rails

The Economic Modernisation of France 1730-1880
by Roger Price
Croom Helm, £6.95
ISBN 0 85664 227 4

Roger Price concentrates on the development of the French economy between 1730-1880. The period is conceived for the most part as one in which growth and production occurred within a pre-industrial economic structure which was succeeded around the middle of the nineteenth century by the creation of an industrial economy and a rapid structural transformation of society. In dealing with France it has been remarked elsewhere that we are concerned with a country which was "a suitable theatre for the development of industrial capitalism". But French development was overshadowed by the rate of economic growth in Britain in the late eighteenth and early-nineteenth centuries and later by the rapid development of Imperial Germany, a process which generated considerable economic problems in French business circles. Price's task is to explain why it was that the *ancien régime économique* existed for so long and how it finally disintegrated. In attempting this he emphasizes the importance of the transport development of railways. Although he rejects the notion of transport determinism his thesis is that "... the weakness of the transport infrastructure was the main reason, in the French situation, for a state of relative underdevelopment".

For someone with an interest in 1848 and the Second Empire it is understandable that the railways should appear as the agent of change, progress and destruction and their absence as the key to retardation. The Second Empire was, after all, the most crucial period in the development of the French railway network and indeed it would be difficult for anyone to question the transforming role and the multiplier effects the railways exerted. But the influence can be overstated. The economic changes which occurred during the Second Empire were the consequence of a number of factors which had begun to develop in the 1840s and involved a steady if not spectacular increase in income and demand which favoured the expansion of certain sectors of the economy and called for the growth of complementary investment which included railways but much more besides.

Although the railway factors which contributed to France's progressive evolution are noted, they are essentially subordinated to the railway whereas they need to be seen as interconnected with such other factors. Furthermore, the author's conclusion that the railway was the socially organized and taken place beneath particular social conditions.

While those who have argued that the key to the understanding of the French development lay in the nature of the French entrepreneur are firmly put in their place, and rightly rounded that entrepreneurship cannot be discussed outside its appropriate socioeconomic context, there is a danger of the railway being repeated. It is also surprising that students are not referred to the rich corpus of material provided by the *Annales* school of thought, while there are those who might ponder on the writings of other economists and Marx, and others who might regret the absence of a full discussion on the effects of the revolutionary settlements in particular French development, in particular the tension which existed between the capitalist superstructure and the inherited from the revolution.

On the positive side this book provides students with a considerable amount of accurate information about industrial, commercial and agricultural aspects of the French economy. It is to history and economic history courses rather than to a generalist development course that it will find its home.

Colin Holmes

BOOKS

Antiquarian

Environment and Plant Development
by H. Lünemann
Translated and edited by Eric Ashby
Chichester-Macmillan, £7.50
ISBN 0 02 848580 7

Scientists are not usually antiquarians. This past is something finished with, and all that is interesting is the present and its problems. So old textbooks are consigned to the bookshelves or left to rot in university libraries, or if they are allowed to live on at home they are ultimately tied up in parcels where room is needed for the children and ignorantly dumped at the nearest second-hand bookshop for "fifty pence and you can't see me making a profit on them".

So it would seem surprising that this textbook of three hundred pages written in German in 1925 and translated into English in 1931, should now be reprinted fifty years later in facsimile for about ten times its original cost. Yet I have a memory of a tutorial class held twenty years after the book was published in which I was shown a battered copy. How terribly old fashioned I thought my tutor was still to be using it. His book was battered by heavy use then, and so is the copy in our library now. What is its spell that this book has cast?

There are two ways of looking at this book. The first is to look at it as a historical document, just one of the many old-fashioned structures and processes, and the point is an understanding of that one organism. The second is to look at it as a historical document, just one of the many old-fashioned structures and processes, and the point is an understanding of that one organism.

At that time considerable advances had been made in describing our natural vegetation. Yet it was from a dry and factual point of view with little attention to the living organism. But Lünemann thought that the problems of ecology could only be solved by experimental methods and that ecological factors could not be properly valued without a knowledge of their physiological basis. In one step he undertook to be a comparative anatomist, physiologist and ecologist. He pulled together the quantities of physiological work that were then being produced to provide a comparative study of the relation between plants and their environment.

Anyone who takes up this book today will be astonished by how modern it is. For we are now in the age when comparative physiology is popular and ecological relationships are being examined in physiological terms. But this is an approach that was beginning in this book, then it was for many years, and has only blossomed in the last two decades. So there is much in the book that is as fresh today as it was fifty years ago. Indeed it is quite remarkable how far Lünemann has produced principles concerning physiological "temperature" and "light" which are not even properly appreciated now. It is a book which understands phenotypic adaptation and records much of the early work in this subject, and it understands the nature and problems set by the variability found within species but living in close proximity to Turveisen. This is only to be expected. But perhaps the book's most attractive feature is how full it is of comparative data of species. Lünemann's ecological power of comparative ecology long before most of his contemporaries.

So the book has an antiquarian value, because it is where many of our present ideas and approaches to ecology have come from. Among Lünemann's 850 references the young ecologist may find mention of more than one place of work that he never dreamed had been done. And he might well, as I did the week I set down and read the whole book with fascination.

A. D. Bradshaw

Crocodile tears

Salt Glands in Birds and Reptiles
by M. Peaker and J. L. Iwam
Cambridge University Press, £9.00
ISBN 0 521 20629 4

"To this river we saw many Crocodiles... His nature is cruel when he would have his prey, to cry and sob like a Christian body, to praise them to come to him, and then he snatched at them" (1565, Sir J. Hawkins).

Although the evil cunning attributed to the crocodile in the quotation is based on a false interpretation of the significance of "crocodile tears", they do exist and are merely the secretion from the salt glands which occur in the head region of both reptiles and marine birds, and are the subject of this excellent monograph.

The first chapter reviews the accumulation of knowledge of the structure of salt glands and their distribution in different species over hundreds of years, and contains an interesting extract from Schmidt-Nielsen's recent but classical paper of 1958 that established for the first time the osmoregulatory function of the salt gland, which is to excrete excess sodium chloride in a hyperosmolar solution.

The ensuing chapters on the anatomy, ecology, blood supply and nervous and hormonal control are lucid and detailed, and contain many snippets of inside information. The dogma that osmotic secretion is qualified by one of the authors who personally has never observed it.

The account of the authors' own discovery that the osmoreceptors that trigger the osmotic response are located in the heart, and not as previously postulated in the hypothalamus, is particularly well

covered. A convincing case is made that osmotic play the dominant role in regulating secretion of the gland, and that osmotic and other hormones play a secondary role. In the discussion of intracellular ion-transporting mechanisms and adaptive changes, problems such as the questionable reliability of cholinesterase techniques are clearly brought out.

The final chapters in the first section are wide-ranging, covering such topics as the possible importance of the salt gland in the successful rehabilitation of salt-sea birds.

The second major section covers reptilian salt glands which, although not homologous with the nasal salt glands of birds, as they are modified lacrimal glands, have evolved a very similar structure and function. The concluding chapter focuses on the evolution of salt glands.

The graphs, tables and figures are clear and accurate, and the photographs are of good quality although a few suffer from an excessive reduction in size. The bibliography is comprehensive, and there is a useful list, with roman numerals, of papers published since 1972. Throughout the text the names of contributors are pointed out, and weak evidence ruthlessly but fairly exposed.

This stimulating book is therefore strongly recommended both as a standard text for workers in the field, and to bring this fascinating gland, which has a simple function that it performs supremely well, before a wider audience of mammalian physiologists, endocrinologists and developmental biologists.

A. D. Hally

Police-birds needed

Pollutants and Animals
by F. Mordant
Allen & Unwin, £6.65
ISBN 0 04 590001 9

Sherlock Holmes, collector of clues and master of reasoning, lives on in the guise of Moriarty. Our latter-day Holmes has all the hallmarks of the great original, save perhaps his tedium.

In this book abundant and accurate evidence is collected and presented in a manner convincing to layman and expert alike. It might well have been subtitled "The Case of the Birds". But *Pollutants and Animals*, which permeated the problems of pollutants before the public has been discarded and a well reasoned approach has been adopted.

Pollutants are generally recognized to be by-products of man's activities, yet whether or not a substance can be regarded as a pollutant depends not only on what it is, but where it is. Among monomolecular pollutants, chlorinated hydrocarbons such as DDT are used effectively to control insect pests but are known also for the deleterious effect they have on non-target organisms of physical well-being. A decision to use, or continue to use, a potential pollutant requires a balanced view of the benefits and likely hazards that will arise from widespread use of the substance.

The conflicting claims of commerce and domestic life must also be considered in the decision making process. The benefits (usually economic) are frequently well known, the hazards (usually biological) less so. High profit commerce and technology are prepared to pay out more than one place of work that he never dreamed had been done. And he might well, as I did the week I set down and read the whole book with fascination.

A. D. Bradshaw

Pollution of our environment, as a result of man's technological advances, has existed for centuries and yet it is only over the last few decades that the public at large has recognized that man's activities can, if uncontrolled, have widespread and unintended effects on organisms. Organophosphorus insecticides, heavy metals, radioactive and chemical pollution of air, water and land are all referred to in the present work but the well-documented organochlorine insecticides such as DDT, aldrin and dieldrin are used extensively to illustrate the scientific approach to the questions, "How much pollution is present?" and, "What effects does it have?"

We are told that the major recognized pollutants are, what their chemical structure is, the way in which they operate and what the techniques used to identify and quantify them are. The methodological problems of sampling and interpretation so as not to mislead are outlined. As we might well suspect, evidence is presented that demonstrates that scientists, like other professionals, are fallible. Careful planning, as in most things, is a must.

In one case-study racing pigeon owners accused peregrine falcons of mouse murder but investigations by the Nature Conservancy showed there had also been a decline in peregrine numbers, their egg shells were thinner than normal and their breeding success was reduced. Moreover, since peregrines were shown to carry high levels of insecticide, it was urged that the falcons were feeding on pigeons which had been treated with DDT, and full of dieldrin dressed cereal seed; the earlier claimed victims were themselves unwitting accomplices in another crime.

Birds of prey, sea birds and butterflies all appear as victims of unintentional crimes, crimes discovered by accident, crimes which might have been prevented had a well informed "police force" been present to predict their occurrence.

John Phillips

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Edward Arnold
25 Hill Street, London W1X 8LL

BOOKS

Kids' talk

Language in Childhood
by Hazel Francis
Black, £5.95
ISBN 0 236 31139 5

Language in Childhood presents two studies of the language of children aged from three to seven. The first analysis of the speech of the author's son, aged from two to three, is a half to two and three-quarters. His utterances while playing alone, in parallel and jointly with his four-year-old sister were written down together with details of their context and his mother's interpretation of each remark, recorded in the form of what he might have said with a fuller command of the language. The second study explores aspects of the speech, reading and writing of two groups of five to seven-year-olds. A variety of interesting techniques were used to consider the effect of literacy on children's knowledge of the language and their capacity for discriminating and judging linguistic material, as well as simply to record their development.

Contributions to the fund of techniques for studying children's language and in our knowledge of their language skills these investigations are in themselves interesting and useful. However, the author intended them also to throw light on Chomsky's view that linguistic competence (defined as total knowledge of the syntactic descriptions of a language in terms of deep structure and transformation rules) underlies language acquisition and cannot be learned but must be somehow internally represented. She considers that this view has been supported by empirical studies only in so far as they have been concerned with the form of children's language. When function is taken into account, as in her work, it no longer seems necessary to attribute to children an unexplored knowledge of grammatical structure and language acquisition can be seen as simply an aspect of a more general development, with the involvement of learning processes appearing less unlikely. The book closes with an interesting discussion of how language might be learned, based largely on Schlegel's model and sensibly emphasizing that different processes may predominate in various aspects of language acquisition.

The author's argument is well taken. However, it is unfortunate that the work is being published some years after its inception since the interval has allowed the essential resolution by others of the issue to which the research is directed. The Chomsky view of competence requires explanation, leaving us with a definable, for instance, Wiles and Marshall in 1970 (Lyons's *New Horizons in Linguistics*) identified as "communicative competence", is the ability to produce and understand utterances which are appropriate to their social context as opposed to being simply grammatical. And most recent work in the field acknowledges and incorporates this wider view of what is to be explained in studying language acquisition. Thus much of the theoretical discussion presented here appears unneeded, leaving the empirical data which are presented and the concluding chapter on learning of the book's main contributions.

The book was intended to interest not only psychologists and linguists but also teachers and parents. It would seem difficult in principle for a single book to satisfy such a wide audience and the difficulty has not been overcome here. Because of the dominating theoretical argument, the technical vocabulary and assumed background knowledge, even over-enthusiastic teachers and parents, in spite of the generally lucid style, at the same time the discursive presentation of results may fail to satisfy linguists and psychologists seeking new data to confirm an argument whose essence they already appreciate. More careful titling of sections, enabling readers to select what interested them, could have reduced this problem. Nonetheless, persistent readers will find something of interest whatever their specializations.

Hazel Hayhurst

Not a native tongue

A History of Modern English Sounds and Morphology
by Elbert Ekvall
translating and edited by Alan Ward
Blackwell, £4.50 and £2.25
ISBN 0 631 14930 9 and 14391 3

In 1962, on Ekvall's eighty-fifth birthday, his friends published a bibliography of his writings. It contained 568 items, many of them substantial in bulk, the whole forming a wide-ranging in scholarship. Like the great English philologists of the nineteenth century he excelled equally in the scope and depth of his contributions to knowledge and in the skill in presenting available information clearly and concisely for beginners. But his scholarly career took place in the twentieth century, and no native English-speaking scholar of the present century leaves a memorial in complete silence. By 1962 he had been publishing for nearly sixty years, but he had still not completed his work: the German text from which this present translation derives was a revision published (just posthumously) in 1965.

Yet the essential conception of the work goes back to the first edition which appeared in 1914. As a handbook it has great strengths. Ekvall was determined not to exceed 150 pages; the work is a masterpiece of compression and selection. Not a word is wasted, and it is hard to think of similar information packed so tightly. Much information can be gathered (in fact, in its present format the work runs to 123 pages). This translator has preserved (occasionally improved on) the terseness of the original and has produced a version with a level of readability and rare in the subject today. He has discreetly corrected slips (there is noticeably more to correct in the morphology than the phonology). He has made a modest attempt to update the phonology by taking into account changes in pronunciation during the last half-century. He skillfully adopts the phonetic notation to widely accepted modern conventions. This is a commendable attempt to single out issues on which Ekvall's interpretation of the evidence might be queried. But this is hardly fruitful in view of the more general questions raised by the appearance of the volume in 1975. The translator asks: "Can then a translation so late in time be justified?" His actions demonstrate his answer; the stated ground for it is the widening of interest in the history of English beyond the small circle of specialists in the field. But this can hardly be an appropriate readership. The text assumes in the reader qualifications no longer widespread — an awareness of the history of English in its Old and Middle phases as an antecedent to study of the post-medieval period, and an ease with phonetic transcription enabling him

to transcribe symbols into sounds with no more help than an introductory note (not even a list). More disturbing are the assumptions about the subject — that sounds and morphology are the prime topics of linguistic history, and can be treated in relative isolation; that the standard language is of central interest and can be treated in relative isolation; that variations within it can be acknowledged to exist but can be treated as minor, almost accidental, blemishes on its unity. All monographs are in square brackets: though the terminological distinction between phonetic and phonological could hardly have been made in 1914, some were already aware that in both synchronic and diachronic studies a distinction of this sort was called for. A preference for the evidence of orthographic leads to a tendency to put some changes later than most scholars would now consider correct.

This book, as its translator claims, is a classic, and should be read. Probably no one now alive, with knowledge of advances in the last half-century, could write what might be considered its grandson. Where it differs from the translator is in the conception of the audience to be reached. A text which on so many matters is out of touch with present-day conceptions of what a linguistic history should deal with, and in what principles, is not for the non-specialist.

Barbara Strang

How you say it

The Pronunciation of French
by P. A. D. McCarthy
Oxford University Press, £2.50
ISBN 0 19 437402 5
with accompanying tape recording
ISBN 0 19 450591 X
The Pronunciation of German
by P. A. D. McCarthy
Oxford University Press, £2.50
ISBN 0 19 437401 7
with accompanying tape recording
ISBN 0 19 450590 1

Books which describe the pronunciation of a language generally fall into one of two categories: either they provide a more or less exhaustive and detailed account of the phonetic features of the language, or they are practical manuals which concentrate on basic essentials and have as their aim an improved pronunciation on the part of learners of the language.

The two parallel books *The Pronunciation of French* and *The Pronunciation of German* are explicitly of the latter sort. They are therefore directed primarily at teachers who already have a fairly good pronunciation in French or German, and who seek to improve their methods of teaching it. They are also aimed, as textbooks, at students in higher education or the later stages of secondary education.

What is looked for in books of this kind, by both teachers and students alike, is first a general statement of the pronunciation of any language; then a statement of the facts regarding how it is pronounced, including, perhaps, some information on the way pronunciation varies according to region or stylistic register; and also indications of the principal difficulties English speakers might expect to encounter, with suggestions on how to overcome them.

All these things are to be found in McCarthy's two books. The general framework is provided in an appendix, the same in both books, which gives a concise but fairly comprehensive account of the basic principles of articulatory phonetics, and an explanation of the technical terms used in the text. Diagrams are used here, but rather sparingly, and one crucial diagram, showing the organs of speech, is rather confusingly labelled only with letters to which no key is provided.

The description of the principal features of French and German pronunciation is clear and easily assimilated. The plan is the same in both cases: chapters on prominence or emphasis, connected speech, and intonation are followed by treatment first of the vowels and then of the consonants. The descriptions are clear, and the technical terms have been provided with cross-references to the relevant sections of the appendix. The practical teaching hints for each sound are

sensible. What is missing, though, is a sufficient number of diagrams, only eight in each book for all the vowels and consonants together. (Armstrong, for instance, has over fifty in the comparable chapters of her *Phonetics of French*.) There should also be example sentences in phonetic transcription: this would have been a great help in the treatment of prominence and emphasis and of connected speech.

A final chapter reviews the relation between sound and spelling, and each book is accompanied by a cassette tape recording of the intonation patterns and of all the vowels and consonants.

A general descriptive framework, a statement of the facts, and practical teaching hints are only part of what introductory pronunciation manuals ought to contain. They should also provide large amounts of carefully graded exercise material. This, unfortunately, the two books fail to do, and the omission is a serious one. Some chapters — "Connected Speech" and "Intonation" (in French but not in German) — and some individual sounds — /i/ and /r/ in both languages — are adequately supplied with practice material. But why only these? The 35 minutes of illustrations provided by the tape recordings can in no way claim to be sufficient in themselves. Comparison with other books of similar size and scope, Armstrong's *The Phonetics of French* or Ward's *German Pronunciation*, leaves one favourably disposed to McCarthy's two volumes in this respect.

There are obvious limitations on the practical benefits that can be expected from books of this kind. McCarthy himself points out that "getting to know the facts about a language is no substitute for, and can only be a useful preliminary to, learning to speak it. This needs quite a different approach, including techniques of sensory training and the perfection of skills in particular sounds, which gives a more complete account of the basic principles of articulatory phonetics, and an explanation of the technical terms used in the text. Diagrams are used here, but rather sparingly, and one crucial diagram, showing the organs of speech, is rather confusingly labelled only with letters to which no key is provided."

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A. S. Crompton

Perfect language does not equal perfect thought

Universal Language Schemes in England and France 1600-1800
by James Knowlson
University of Toronto Press, £8.75
ISBN 0 8020 5296 7

Although Dr Knowlson provides an impressive bibliography at the end of his book, most of the references are perforce tangential since he has had few real precursors in this somewhat recondite field of study. Nevertheless, the idea of a universal language, in the special sense in which the term is used in this book, is familiar to most students of the history of thought and also, one assumes, to most philosophers. It is not the recent artificial languages such as Esperanto or Volapük which are the subject of this study, but the fundamentally intuitive more or less conscious attempts of seventeenth and eighteenth-century thinkers to produce a universal language which would not only be easier to learn and use than existing languages, including Latin, but which would be a means of acquiring knowledge; it would itself be knowledge, since each word would provide a

accurate description of the thing signified. Leibniz and others were later to extend this idea to include the production of a universal or "real" character that would be capable of expressing unambiguously the most complex ideas and combinations of ideas; as that the language itself would become an instrument both of analysis and discovery, or a kind of philosophical algebra. The author traces its somewhat nebulous field of study. Nevertheless, the idea of a universal language, in the special sense in which the term is used in this book, is familiar to most students of the history of thought and also, one assumes, to most philosophers. It is not the recent artificial languages such as Esperanto or Volapük which are the subject of this study, but the fundamentally intuitive more or less conscious attempts of seventeenth and eighteenth-century thinkers to produce a universal language which would not only be easier to learn and use than existing languages, including Latin, but which would be a means of acquiring knowledge; it would itself be knowledge, since each word would provide a

The nature of the various seventeenth-century proposals for a real character was far from homogeneous, although all seemed to share a common quality of cumbersome-

ness and of complexity which made the optimistic claims of their inventors sound more unconvincing. In the eighteenth century, interest in such schemes was slow to regain momentum and did not really begin to revive before the mid-century, partly as an offshoot of other philosophical interests like the upsurge of inquiry into the nature of language, allied to the spread of encyclopaedist epistemological ideas. There is, however, much to interest the student of late eighteenth-century thought in Knowlson's account of the divergent views on the subject held by the *idéologues* of the Institut. Following the lead given by Condillac's *Essai sur la sensibilité*, Condorcet, Lancelotti and others were convinced of the utility and even of the possibility of an ideal language, although not aware of the difficulties of the project. Destutt de Tracy, on the other hand, became ever convinced that it was unlikely that a perfect language would bring about the perfection of thought, an opinion which was shared by de Gérando and Maine de Biran.

It is more or less at this point that the study stops, somewhat

abruptly, with the conclusion that those who sought, later in the nineteenth century, to create national languages tended to turn to non-philosophical or post-philosophical models instead of using a priori approaches; "leaving philosophers and logicians to realize in certain limited fields the dream of Leibniz and Condillac for a language in which reasoning would become synonymous with calculation." In view of this statement one is rather left hoping for a sequel.

This is basically the study of an ambitiously conceived intellectual enterprise which failed, and the history of an intellectual failure rarely makes exciting reading. It is, however, a very real contribution to our knowledge of a relatively neglected topic and one which the student of the eighteenth century at least should neglect. The book itself is a fine example of modern book production, both in its typography and its binding. In view of this technical excellence it is a great pity that the title of chapter six should read "Falsification in the 1790s" when it clearly means "in the 1790s".

Frank Henley

BOOKS

Towards the Orwell millenium

The Road to 1984
by William Steinhilff
Weidenfeld & Nicolson, £5.00
ISBN 0 297 76881 2

George Orwell: The Critical Heritage
edited by Jeffrey Meyers
Routledge & Kegan Paul, £8.95
ISBN 0 7100 8255 X

The George Orwell boom continues. His reputation has risen steadily in the quarter-century since his death, and *Animal Farm* and *1984* have each sold over eleven million copies. The title of William Steinhilff's book suggests that there is a childish side to this: what will the year's work in Orwell studies look like, one wonders, in 1985 or 1986? But though his popularity may be due for an eventual fall, he will always be remembered as a trenchant writer of style and an historical witness of deep interest. Nothing would be more valuable in present times than a book which succeeded in putting the Orwellian record straight. These two books fail to do this, and they fail because their authors, who are both Americans, have not measured up to the magnitude of the task. They present a good deal of useful historical material, without giving it any thoroughgoing evaluation.

The Road to 1984 is a source study, tracing the various strands in Orwell's thought which culminate in his final work. Professor Steinhilff assumes rather than proves that 1984 is a masterpiece, and that its undeniably influential vision of the world is a true and necessary one.

Like other recent critics, he shows that the bleak pessimism of late Orwell had been growing for many years, and was not the illness-induced observation that the author's friends have tended to suggest. Steinhilff shows the development of Orwell's mind by means of voluminous quotations from his life, and from the various strands in his thought. One of the themes that he follows is Orwell's belief that a communist society, as the British intellectual world of his day, Steinhilff adds some scholarly qualifications, but neither this nor any other of Orwell's convictions is subjected to a really searching investigation. Yet Orwell was himself an intellectual and a literary politician, whose writings contain their fair share of short-sightedness, prejudice and even absurdity. One turns to Jeffrey Meyers's volume to find what his fellow-intellectuals said about him. As we would expect, the *Critical Heritage* series, many important articles and reviews are reprinted, but their selection often seems arbitrary, and the editor's attitude, unhelpful. The opportunity of producing new evidence about Orwell's life and work is missed.

The most surprising feature of Professor Meyers's collection is that nearly half of it consists of posthumous items. He has given an unprecedented amount of space to recent critics, at the expense of those who read Orwell's books when they first came out. Moreover, these critics appear solely in their capacity as book reviewers. Condorcet's 1963 Listener piece is here, but not his influential earlier essay in *Writers and Politics*. Irving Howe is represented by a review in *Harper's*, not by an excerpt from *Politics and the Novel*. The editor has, somewhat incongruously, included one of his own reviews while not reprinting such seminal critics as Lionel Trilling, Eric Hobsbawm and Raymond Williams. The penalty of following Orwell's lead in this regard is that the 1960s was that such a selection could not possibly think to be representative.

The history of posthumous publication and republication of Orwell's work is certainly important, however, and the book's inclusion of *Collected Essays, Journalism and Letters* was a genuine turning-point. For the first time, Orwell's writings could be viewed as a whole, and the book is a fine example of modern book production, both in its typography and its binding. In view of this technical excellence it is a great pity that the title of chapter six should read "Falsification in the 1790s" when it clearly means "in the 1790s".

It is more or less at this point that the study stops, somewhat



George Orwell

set out to do was to read every book that Orwell reviewed and to make what use he could of this unexploited evidence.

His book contains handy summaries of the works of writers such as James Burnham, Zamyatin and Arthur Koestler — though little, it must be said, which will come as a surprise to the careful reader of Orwell himself. His final chapters, covering 1984, are a book which has changed the world, rather than as a work of literary art. The author deals with some criticisms of the novel, including those advanced by one whom he inexplicably names "St. Isaac Deutscher", but his criticisms are mainly problems that Orwell's nightmare raises.

Orwell's popularity was a product of the Cold War. *Animal Farm*, which had difficulty in finding a publisher in 1944, was an enormous success when it appeared in late 1945. 1984, the second of his anti-communist satires, came out after the Czech camp at the Berlin crisis had confirmed the nature of Stalin's grip on Eastern Europe. The book's reputation in America was made by reviews by Mark Storer and Lionel Trilling, which Steinhilff does not reprint. These, but it seems from his selection that most reviewers — with the significant exception of Diana Trilling and Daniel Bell — had some reservations about the artistic quality and sociological plausibility of the novel. The British critics especially seem to have been more impressed by its defence than the American Cold War liberals. The crudity of the torture scenes (a few who are not) and the unconvincingness of O'Brien and the difficulty of keeping a whole population under electronic surveillance were all pointed out.

It may be argued that the bulkiness of actual totalitarian states has led to unjust persecutions and genocides, but terror in 1984 is not random or irrational, and is closely tailored to the individual victim. The persecutors of Winston Smith are seen to acknowledge his individuality abundantly by their very methods of blotting it out. At the same time, there are no parallels between the victimization of Winston Smith and that of earlier Orwellian heroes such as Comstock in *Keep the Aspidochelone* or Flory in *Burmese Days*.

Various critical interpretations have been based on these parallels. Steinhilff, for example, suggested in 1956 that Orwell's imagination was shaped by the persecutions of his own school, and more recently Alan Sandison has seen it as that of a Protestant conscience as that of a Protestant conscience. Neither interpretation is adequate as it stands, but they do suggest the private and solipsistic strain in Orwell's vision, even when it was at its most universal.

To say this is not, of course, to deny its political relevance. It is a question of how much relevance the book now has.

Patrick Parrinder

Critical companion pieces

Thomas Hardy's The Mayor of Casterbridge: Tragedy or Social History?
by Laurence Lerner
University of Sussex Press, £2.50
ISBN 0 85621 042 0 and 043 9

Virginia Woolf's Mrs Dalloway: A Study in Attention
by Jeremy Hawthorn
University of Sussex Press, £2.50
ISBN 0 85621 046 3 and 047 1

Henry Fielding's Tom Jones: The Novelist as Moral Philosopher
by Bernard Harrison
University of Sussex Press, £2.50
ISBN 0 85621 044 7 and 045 5

Sussex philosophy projected into homo-spin literary tracks for our times.
The method behind the first three titles in this new series is not too far from the method of Laurence Lerner's *The Mayor of Casterbridge*, a survey which says a good deal, but which also leaves a good deal unsaid. He gives his analysis, but an analysis which is far from systematic. He shaves off areas of interest and examines them closely and comparatively, advancing his comparisons in an informed and stimulating manner. It is only occasionally, however, that we are led to feel that he is dealing with the particular problems of this particular novel, indeed there are times when he seems to write more fully about *Fanshawe* of the *Dr. Overalls*. The volume finally fails to establish the real quality of the novel, either omniscient Hardy's oeuvre or as a work of art in its own right.

Jeremy Hawthorn's *Mrs Dalloway: A Study in Attention* suffers in much the same way. Hawthorn presents a sympathetic and unproblematic account of the novel, but he reserves his criticism for a critique of Virginia Woolf's shortcoming as a social realist. At times his quotations from Marx seem only marginally relevant or misplaced. Granted he sees alienation in the novel, but he does not see it as a historical phenomenon that has very specific social and economic roots, and that the contradiction between cooperative production of wealth and its private ownership is its fundamental cause. It is the "has to be" which suggests that we are being forced to view Virginia Woolf from an ultimately unfavourable angle, and to appreciate that having analysed the problem she failed to give orthodox answers.

Bernard Harrison's study of Tom Jones from a philosopher's standpoint seems a most interesting and useful contribution to the study of the novel. Professor Harrison argues for Fielding's consistency as a thinker and establishes a persuasive approach to Fielding's masterpiece. He does not attempt to offer a new reading simply for the sake of "relevance" but to relate Tom Jones to certain lines of eighteenth-century reasoning. This is a valid and unpretentious establishment of context, and one which many students of Fielding may find rewarding.

In contrast to the Sussex volumes Anthony Kearney's short study of *Christina for Arnold's* is unassuming and it makes no show of breaking new ground. It is a solid enough piece of work, even though it might lead one to wonder if Christina will ever be preserved from a Level syllabus.

Andrew Sanders

Reviewers

A. D. Bradshaw is Holbrook Gaskell professor of history at the University of Liverpool; Frank Hiley has written *Foreign Language Teaching in the University* and is professor and head of department of linguistic and regional studies at the University of Surrey; Collin Holmes has co-edited *Discourse of European Economic Integration* and is senior lecturer at the University of Sheffield; Sidney Pollard is professor of economic history at the University of Sheffield and has written *The Economic Integration of Europe*.

Correction

A. R. M. Coxon no longer lectures in sociology at the University of Edinburgh (The *THES*, November 21, 1975) and has taken up a new appointment as Professor of Sociological Research Methods at University College, Cardiff.
R. A. Morris is professor in the department of history at the University of Nottingham and is no longer at the University of Liverpool (The *THES*, November 28, 1975).

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THE UNIVERSITY

SENIOR LECTURERSHIP IN EDUCATION

Applications are invited for a Senior Lectureship in Education in the Department of Education. The successful candidate will be responsible for the teaching of education, and for the supervision of students on the B.Sc. (Hons) Education degree. The salary scale is £2,915-£3,686 p.a. plus £1,000 London Allowance. Further particulars from the Registrar, Loughborough University of Technology, Leicestershire.

HONG KONG

THE UNIVERSITY

SENIOR LECTURERSHIP IN EDUCATION

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LANCASTER

THE UNIVERSITY

LECTURERSHIP IN SOCIAL ADMINISTRATION AND SOCIAL WORK

Applications are invited for a Lectureship in Social Administration and Social Work in the Department of Social Administration and Social Work. The successful candidate will be responsible for the teaching of social administration and social work, and for the supervision of students on the B.Sc. (Hons) Social Administration and Social Work degree. The salary scale is £2,915-£3,686 p.a. plus £1,000 London Allowance. Further particulars from the Registrar, Loughborough University of Technology, Leicestershire.

MANCHESTER

THE UNIVERSITY

DEPARTMENT OF MANAGEMENT SCIENCE AND TECHNOLOGY

LECTURER

Applications are invited for a Lectureship in the Department of Management Science and Technology. The successful candidate will be responsible for the teaching of management science and technology, and for the supervision of students on the B.Sc. (Hons) Management Science and Technology degree. The salary scale is £2,915-£3,686 p.a. plus £1,000 London Allowance. Further particulars from the Registrar, Loughborough University of Technology, Leicestershire.

MANCHESTER

THE UNIVERSITY

DEPARTMENT OF MANAGEMENT SCIENCE AND TECHNOLOGY

LECTURER

Applications are invited for a Lectureship in the Department of Management Science and Technology. The successful candidate will be responsible for the teaching of management science and technology, and for the supervision of students on the B.Sc. (Hons) Management Science and Technology degree. The salary scale is £2,

Polytechnics continued

Applications are invited for the newly created post of —

VICE PRINCIPAL

The College is a Scottish Central Institution with a sub-university and growing range of degree and diploma courses. Applicants should be highly qualified academically and have appropriate experience in higher education at a senior level of appointment.

The salary is £9,799 per annum (currently under review in the light of the Houghton Committee Report). Further particulars and application forms may be obtained from the Principal, Dundee College of Technology, 801 Street, Dundee D01 1HG, to whom completed application forms should be returned not later than 27th December, 1975.

dundee college
of technology

KINGSTON
POLYTECHNICPRINCIPAL LECTURER
IN PAINTING

Salary £5,940-£6,642 (bar) - £7,578
+ £267 London allowance

Further details and application forms from Appointments Officer Kingston Polytechnic, Penryn Road, Kingston upon Thames KT1 2EE. 01-549 1306. Closing date: January 9, 1976.

ULSTER COLLEGE
THE NORTHERN IRELAND POLYTECHNIC

Faculty of Technology

School of Surveying

LECTURER II—Quantity Surveying

Applicants should be Chartered Quantity Surveyors and/or holders of appropriate degree qualifications. Duties will involve lecturing to the full-time courses and to the Diploma courses for both the Quantity Surveying and General Practice Surveying Divisions of the Royal Institution of Chartered Surveyors.

School of Mechanical and Industrial Engineering

LECTURER II—Materials—Engineering Technology

To teach Materials Science in Certificate, diploma, degree and honours degree courses. Experience in the field of Polymer Science will be an advantage.

Faculty of the Arts

School of Music and Drama

LECTURER II—Music

To teach students working for the Polytechnic Diploma in Music and other courses in music offered by the School. Preference will be given to a gifted pianist able to teach his instrument to diploma level. An interest in choral direction would be an advantage.

Salary Scale: Lecturer II—£3,279-£5,493.

Further particulars and application forms which must be returned by December 19th may be obtained by telephoning Whiteabbey 65131 ext. 2243 or by writing to: The Establishment Officer, Ulster College, The Northern Ireland Polytechnic, Jordanstown, Newtownabbey, Co. Antrim BT37 0QB.

Lecturer Grade II/
Senior Lecturer
in Economics

Department of Business and Professional Studies

To commence as soon as possible. The successful applicant will be required to teach economics on mainly business studies courses. Commencing salary within the range of £3,279-£5,493 p.a. with progression to a maximum of £8,417 per annum.

For further details and form of application please send a self-addressed envelope to the Chief Administrative Officer, Trent Polytechnic, Burton Street, Nottingham NG1 4BU. Closing date 10 October, 1975.

TRENT
POLYTECHNIC



Regional Council

Napier College of Commerce and Technology

LECTURER (B) IN POLYMER TECHNOLOGY
(REF. 4Ch/7/6)

The successful candidate will be expected to lecture in the Department of Chemistry in the following areas—plastics technology, rubber technology and general science.

Candidates should possess a science degree or graduation in the Plastics and Rubber Institute and have had appropriate experience in the polymer processing industries.

SALARY: Lecturer B, £2,967-£4,359. Further particulars and application forms returnable within 10 days of this advertisement are available from the Academic Registrar (T), Napier College of Commerce and Technology, Colinton Road, Edinburgh EH10 8DT.

Colleges and Institutes of Technology

CO. WESTMEATH VOCATIONAL
EDUCATION COMMITTEE

ATHLONE REGIONAL TECHNICAL COLLEGE

LECTURER SCALE 1 REQUIRED
POLYMER PHYSICS OR
PLASTICS TECHNOLOGY

Applications are invited for above permanent, whole-time, pensionable post in Athlone College, which is one of the Regional Technical Colleges newly established in Ireland and which is now recognised as one of the main centres for technical and technological education in the Republic of Ireland. The College offers a range of courses including one leading to Graduation in the Plastics and Rubber Institute by the engineering route.

Salary Scale: Lecturer Scale 1, £4,359-£5,493. Women and Single Men: £4,343-£5,443.

Children's Allowances are payable where applicable. The number of increments which may be awarded in previous suitable experience is normally a maximum of five.

Qualifications and Conditions of Service in accordance with Manual 7 of Department of Education.

Interview and re-location grants may be available.

Application forms and further information may be obtained from:

Michael Geoghegan,
National Manpower Service,
Customs Place,
Athlone, Co. Westmeath,
Ireland. (Tel. 0902/2409).
The closing date for receipt of completed application forms is 12th January, 1976.

Fellowships and
Studentships

OXFORD

THE UNIVERSITY

(in association with Lincolns
College, Oxford)

JOEL RESEARCH
FELLOWSHIP

Applications are invited from scientists for the Joel Research Fellowship in the Department of Chemistry, University of Oxford. The Fellowship is for two years from October 1, 1976 to September 30, 1977. The successful candidate will be expected to carry out research in the field of physical chemistry. The Fellowship is open to scientists of any nationality and is available to those who have completed a PhD or equivalent qualification. The salary is £4,359 p.a. plus a research allowance of £1,000 p.a. and a pensionable stipend of £1,000 p.a. The Fellowship is held in the name of the University of Oxford and is subject to the terms and conditions of the University's regulations. Further particulars and application forms may be obtained from the Secretary, Joel Research Fellowship, Department of Chemistry, University of Oxford, 1, South Parks Road, Oxford OX1 3PS. Closing date: January 15, 1976.

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Applications are invited from suitably qualified persons for the following posts —

LECTURER II
in Social Psychology

within the School of Education. Candidates are expected to have a specific interest in, and substantial experience of working with minority groups. The successful applicant will be required to teach a variety of courses, and will be expected to contribute to the development of new programmes.

PRINCIPAL LECTURER
in Administration/Management

within the School of Business and Social Studies. Candidates are expected to hold a degree in one of the following fields: Economics, Planning, Financial Planning, Management Techniques. The successful applicant will be expected to teach a number of courses, and to contribute to the development of new programmes.

Salary scales: Lecturer II £3,279-£5,493

Principal Lecturer £5,940-£7,578

Further particulars and forms of application may be obtained from

The Briefing Officer, Bradford College,
Great Horton Road, Bradford B07 1AY

and completed forms must be returned within 14 days of the appearance of this advertisement.

DERBY: BISHOP LONSDALE COLLEGE
NEW VOLUNTARY
COLLEGE OF HIGHER EDUCATIONPrincipal Lecturer and
Head of English Division
in the School of Humanities

Applications are invited from well-qualified men and women with proven experience and strong interests in curriculum development.

The College offers courses leading to the Teacher's Certificate, Diploma of Higher Education, B.Ed. and Bachelor of Combined Studies degree.

Further particulars and application forms may be obtained from the Principal to whom applications should be returned as soon as possible.

The appointment will be made for September, 1976.

Colleges of Further Education

ASTMS require a LECTURER-IN-CHARGE (Openly Education Officer) for their College at Bishop's Cleeve. The main courses are one week residential for trade union representatives and the successful candidate will be responsible for these. Teaching and trade union experience are essential.

Salary: £4,893, rising to £5,343 after 3 years, plus £104 per annum tax free allowance.

Further particulars available from:

Clive Jenkins, General Secretary, ASTMS,
10/28a Jamestown Road, London, NW11 7DT.

Colleges of Education

CHRIST CHURCH
COLLEGE
CANTERBURY
DEPUTY
PRINCIPAL

Applications are invited from men and women for the post of DEPUTY PRINCIPAL to take effect in the autumn of 1976, or as soon as possible after that date.

The salary will be according to the 'Payroll Scale' for a Group 5 College of Education.

Further details are available from the Director of Education, Hounslow Civic Centre, Lampton Road, TW3 4ON. Closing date 9th January, 1976.

WEST LONDON INSTITUTE
OF HIGHER EDUCATION
PRINCIPAL (DESIGNATE)
Group 10

This new Institute of Higher Education, which will be under a voluntary trust, is being formed by the amalgamation of Gough Road College of Education and Hounslow College of Education. The Institute will offer a range of courses in Education, Health and Social Studies.

Approval has been given by the Secretary of State for Education and Science for the new Institute to function from the 1st September, 1976, and applications are invited from suitably qualified and experienced candidates to take up duties from the 1st April, 1976, or earlier if possible. The person appointed would be expected to take an immediate and important part in planning the new Institute.

Further particulars and application forms are available from the Director of Education, Hounslow Civic Centre, Lampton Road, TW3 4ON. Closing date 9th January, 1976.

Colleges of
Further Education
continued

STOKE-ON-TRENT

CREVE AND ALBAGER
COLLEGE OF EDUCATION
10 Director, Stoke-on-Trent, Staffs.

Applications are invited for the following posts —

LECTURER IN ENVIRONMENTAL STUDIES

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LECTURER IN ENVIRONMENTAL STUDIES

LONDON

ADDITIONAL EDUCATION
INSTITUTE

Address: Oxford, London, W.14

TEMPORARY APPOINTMENTS—
TUTORS IN CHARGE

The following appointments will be made from 1st January, 1976, and will last for three terms only until December, 1976. The vacancies have arisen due to the departure of a number of staff. Candidates should have had recent supervisory or adult teaching experience.

TEMPORARY TUTOR IN CHARGE OF SPECIAL STUDIES

Duties will include the overall supervision of the Special Studies courses and the supervision of the teaching of new courses.

The successful candidate will be expected to teach a variety of courses, and will be expected to contribute to the development of new programmes.

Salary scales: Lecturer II £3,279-£5,493

Principal Lecturer £5,940-£7,578

Further particulars and forms of application may be obtained from

The Briefing Officer, Bradford College,
Great Horton Road, Bradford B07 1AY

and completed forms must be returned within 14 days of the appearance of this advertisement.

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